QC Summary

Lancaster Laboratories

Quality Control Reference List

Client Name: Tierra Solutions, Inc.
SDG: PNV88

Analyte	Batch Numbers	Sample Number
ORP	06030755201A	4692565
		4692566 U,D
		4692567
		4692568
		4692569
		4692570
		4692571
		4692572
		LCS
pH	06024144101A	4692565 U,D
		4692566
		4692567
		4692568
		4692569
		4692570
		4692571
		4692572
		LCS
Hexavalent Chromium	06021027603A	4693387
		Blank
		LCS
ORP	06025755201A	4693387
		LCS
pH	06021020001A	4693387
		LCS
TPH	06027112601A	4693387
		Blank
		LCS/LCSD

ABBREVIATION KEY	
U = Background	M = Matrix Spike Duplicate
D = Duplicate	R = Matrix Spike
LCS = Laboratory Control Standard	
LCSD = Laboratory Control Standard Duplicate	

Lancaster Laboratories

Quality Control Summary
Method Blank
Miscellaneous Wet Chemistry
SDG: PNV88
Matrix: WATER

Analyte	Analysis Date	Method	Batch Number	Blank Results	Units	MDL	LOQ
Hexavalent Chromium	1/21/2006	CO	06021027603	ND	mg/L	0.005	0.02
TPH	1/27/2006	IR	06027112601	ND	mg/L	0.50	1.3

Comments: The blank is acceptable when the result is less than the limit of quatitation.

ABBREVIATION KEY

CO = Colorimetric	IR = Infrared Spectrophotometry
G = Gravimetric	LOQ = Limit of Quantitation
MTR = Meter	NA = Not Applicable
OD = Oven Dried	U = Background
TI = Titration	M = Matrix Spike Duplicate
ND = Not Detected	R = Matrix Spike
J = Estimated Value	D = Duplicate
HS = High Spike	PDS = Post Digestion Spike (P)
* = Out of Specification	LS = Low Spike
MDL = Method Detection Limit	

Lancaster Laboratories

Quality Control Summary
Duplicate Analysis
Miscellaneous Wet Chemistry
SDG: PNV88
Matrix: SOIL

Sample Number	Sample Code	Analyte	Analysis Date	ME	Batch #	Sample Result	Duplicate Result	Units	RPD (%)	Control Limits %
4692566	6020-	ORP	1/30/2006	MTR	06030755201A	124	127	mV	3	46
4692565	6005-	pH	1/24/2006	MTR	06024144101A	7.47	7.49	NA	0	1

Comments: If the background and/or the duplicate result was less than the limit of quantitation, the RPD is not required.

If the background and/or duplicate result is less than five times the limit of quantitation, the RPD is not considered applicable and is program deleted.

ABBREVIATION KEY

CO = Colorimetric	ND = Not Detected
TI = Titration	NA = Not Applicable
G = Gravimetric	OD = Oven Dried
ME = Method	J = Estimated Value < LOQ
MTR = Meter	* = Out of Specification
IR = Infrared Spectrophotometry	
D = Duplicate	

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate (LCSD)
Miscellaneous Wet Chemistry
SDG: PNV88
Matrix: SOIL

Batch Number	Analyte	Analysis Date	ME	True LCS/LCSD Value	LCS Results	LCSD Results	Units	Acceptance Range	% RPD Results	% RPD Acceptance </=
06030755201	ORP	1/30/2006	MTR	263	279	NA	mV	248 - 279	NA	NA
		1/30/2006	MTR	86	112	NA	mV	76.1 - 112.9	NA	NA
06024144101	pH	1/24/2006	MTR	6.87	6.88	NA	NA	6.82 - 6.93	NA	NA

ABBREVIATION KEY

CO = Colorimetric	* = Out of Specification
DI = Distillation	J = Estimated Value < LOQ
G = Gravimetric	NA = Not Applicable
MTR = Meter	ME = Method
OD = Oven Dried	ND = Not Detected
TI = Titration	
IR = Infrared Spectrophotometry	

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate (LCSD)
Miscellaneous Wet Chemistry
SDG: PNV88
Matrix: WATER

Batch Number	Analyte	Analysis Date	ME	True LCS/LCSD Value	LCS Results	LCSD Results	Units	Acceptance Range	% RPD Results	% RPD Acceptance </=
06021027603	Hexavalent Chromium	1/21/2006	CO	0.2	0.203	NA	mg/L	0.18 - 0.22	NA	NA
06025755201	ORP	1/25/2006	MTR	263	272	NA	mV	248 - 279	NA	NA
		1/25/2006	MTR	86	102	NA	mV	76.1 - 112.9	NA	NA
06021020001	pH	1/21/2006	MTR	6.87	6.89	NA	NA	6.82 - 6.93	NA	NA
06027112601	TPH	1/27/2006	IR	12	9.7655	10.167	mg/L	6.5 - 13.6	4	14

ABBREVIATION KEY

CO = Colorimetric	* = Out of Specification
DI = Distillation	J = Estimated Value < LOQ
G = Gravimetric	NA = Not Applicable
MTR = Meter	ME = Method
OD = Oven Dried	ND = Not Detected
TI = Titration	
IR = Infrared Spectrophotometry	

Lancaster Laboratories

Quality Control Summary
Initial Calibration
Miscellaneous Wet Chemistry
Total Petroleum Hydrocarbons
Instrument Identification: 10097
Calibration Date: 01/04/06
SDG: PNV88

Batch Number	Units Conc. mg/L	Blank 0.0000	STD 1 1.0000	STD 2 5.0000	STD 3 10.0000	STD 4 20.0000	STD 5 30.0000	STD 6 40.0000	Correlation Coefficient
06027112601A	ABS	0.000	0.015	0.094	0.196	0.372	0.570	0.759	1.000

Analysis Date: 01/27/06

Units mg/L

Parameter	Reference Concentration	Result	% Recovery	Acceptance Range
ICV	5.0	4.667	93	4.475 - 5.52495
CCV	20.0	19.630	98	17.9 - 22.0998

ABBREVIATION KEY
ICV = Initial Calibration Verification
CCV = Conti. Calibration Verification

Lancaster Laboratories
Method Detection Limits
Department 29 – Water Quality

ANALYSIS	LL #	MDL	ANALYSIS	LL #	MDL
Acidity	476	2 mg/l as CaCO3	Oil and Grease	231	2.5 mg/l
Acidity	4530	3 mg/l as CaCO3	Oil and Grease	236	680 mg/kg
Alkalinity to pH 4.5	202	0.46 mg/l as CaCO3	Oil and Grease	429	0.40 mg/l
Ammonia Nitrogen	573	17 mg/kg	Oil and Grease	2446	334 mg/kg
Ammonia Nitrogen	221	0.2 mg/l	Orthophosphate	226	0.01 mg/l
Ammonia Nitrogen	6914	0.03 mg/l			
BOD	235	0.80 mg/l	Petroleum Hydrocarbons	1126, 8140	0.50 mg/l
Bulk Density	6569	0.08 g/cc	Petroleum Hydrocarbons	1554	0.50 mg/l
Carbonaceous BOD	1364	0.80 mg/l	Petroleum Hydrocarbons	1562	23 mg/kg
Chemical Oxygen Demand	1553	2.6 mg/l	Petroleum Hydrocarbons	1663	21 mg/kg
Chemical Oxygen Demand	234	300 mg/kg			
Chemical Oxygen Demand	4001	12.8 mg/l			
Chloride	1124	0.4 mg/l	Silica	559	0.1 mg/l
Chlorine Residual	240	0.04 mg/l	Silica (low-level)	6628	0.01 mg/l
Dissolved Oxygen	428	0.09 mg/l	Soluble BOD	541	0.80 mg/l
			Specific Conductance	280	1.7 umhos/cm
Ferrous Iron	8344	0.008 mg/l	Specific Gravity	1443	0.005
Fluoride	263	0.03 mg/l	Sulfate	1125	1.5 mg/l
Fluoride Distillation	2200	0.03 mg/l	Sulfate, 10mg/l CCV (non-PW)	1125	8.28 – 9.90 mg/l
Hexane Extractable Materials (Silica-Gel Treated)	8078, 612	1.45 mg/l			
Hexane Extractable Materials	8079	1.4 mg/l	Sulfide	230	0.022 mg/l
HEM Oil and Grease	2562	225 mg/kg	Sulfide, Acid Volatile	1630	0.39 micromoles/g
Hexavalent Chromium	276	0.005 mg/l	Sulfide Titration	1333	0.53 mg/l
Hexavalent Chromium	425	0.50 mg/kg	Sulfide Titration	1122	27 mg/kg
Hexavalent Chromium	1446	0.0007 mg/l			
Hexavalent Chromium	4858	0.65 mg/kg			
Hexavalent Chromium	4859	0.004 mg/l	Sulfite	229	1.2 mg/l
			Total Dissolved Solids	212, 6649	9.7 mg/l
M.B.A.S.	225	0.035 mg/l	Total Hardness	216	0.49 mg/l as CaCO3
Moisture	6866	0.5 %	Total Solids	203	6.3 mg/l
			Total Suspended Solids	206	3.0 mg/l
			Turbidity	279	0.09 NTU

Revised 2/8/06

Raw Data

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Raw Data Logbook

Oxidation Reduction Potential · 1821/7552

Std Ref (Book/pg): 10689 p75   Analysis #: 7552/1821

Batch # 06030 755 201A

	Date: 1-30-06 Time: 0830 Analyst: mw/1026		Inst. #: 1053 Upld Date: 1-30-06 Upld by: mw/1026		redox soln = 476.2 LOQ = 10.0			
	Sample Number 1821	mV Rdg Trial 1	mV Rdg Trial 2	mV Rdg Average	Calc. Value (mV)	Batch Letter	QC#	Comments
1	LCS 4 (203)(463)	278.2	279.7	278.95	279 | 478 (1821)		1	✓ (106%) 103% (1821)
2	LCS 7 (86)(235)	112.2	112	112.1	112 | 311 (1821)		2	✓ (130%) 109%
3	46925665	124.4	124.0	124.2	124			—
4	46925666U	120.7	127.2	123.95	124 / 323 (1821)			—
5	↓ D	126.4	127.8	127.1	127 / 326 (1821)			✓ RPD<3 (D) (1821) - Rpd = 1
6	46925667	115.0	121.7	118.35	118			—
7	46925668	121.3	119.0	120.15	120			—
8	46925669	115.4	116.2	115.8	116			—
9	46925670	117.9	121.9	119.9	120			—
10	46925671	127.4	124.2	125.8	126			—
11	46925672	130.8	129.5	130.15	130			—
12	46871120	96.0	105.5	100.75	~~101~~ 299.75			(1821)
13	46871126 (1821)	90.5	81.8	86.15	285.15			↓
14	CCV 4 (203)(463)	276.0	275.9	275.95	276 / 475 (1821)		1	✓ (105%) 103% (1821)
15	CCV 7 (86)(235)	112.0	110.9	111.45	111 / 310 (1821)		2	✓ (129%) 109%
16					#3 mw 1026 1-30-06			
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

#1 mw/1026 2/3/06

~~3199~~

Verified by: KAB 957   Date: 1/30/06

2674.01 08/07/01

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

RAW DATA LOGBOOK
SOLID pH (CLP)
ANALYSIS #1441

Batch No. 0 6 0 2 4 | 1 4 4 | 1 0 1 A

Init./Emp. #: lmg/239 Date: 1.24.06 LOQ = 0.01

pH Meter ID #: ~~73762~~ 6166 (lmg/239 1/24/06) Balance ID #: 2910

Soln. C (pH = 6.87) Std. Ref. (Book/pg.): 060689p70 B

Time: 1830

Sample Number	Sample Wt. (g)	DI H_2O Vol. (mL)	pH Meter Reading	Batch Letter	SOW.OLM04.3 Comments
BLanK	50	50	7.06	A	22.3
lcs ~~447~~ (lmg/239 1/24/06)	—	—	6.88		13.4 soln 100%
4692565U	50	50	7.47		22.3 # 621/503 02CA
4692565D			7.49		22.1 R=0
4692566			7.48		22.1
4692567			7.50		22.0
4692568			7.57		22.3
4692569			7.75		22.1
4692570			7.53		22.2
4692571			7.52		22.1
4692572	↓	↓	7.49		22.1 ✓ ↓
CCV	—	—	6.90	↓	16.4 100%

Verified by: MG/1/24 Date: 1/26/06

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Water Quality

Standard Curve For: Cr^{+6} Analysis #: 274, 425, 4859

Initials/Emp. #: DSS/237	Curve Name: 274, 425, 4859 1-21-06 9322
Date: 1-21-06	Corr. Coeff.: .999369
Inst. ID: 9322	Slope: 1.688920
Std. Ref. (Book/Pg.): 60, 689 p72	Y-Intercept: .004307

Standard mg/L	mL of 5 mg/L	pH	Abs			Comments
.00	0	181 / 181	.000			
.01	0.2	190 / 190	.007			
.05	1	187 / 187	.036			
.10	2	184 / 184	.071			
.20	4	185 / 185	.145			
.50	10	175 / 175	.360			
1.00	20	198 / 198	.713			
1.25	25	176 / 176	.845			

8281

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HEXAVALENT CHROMIUM

274, 425, 4859 CURVE

ID: 1 0.000 A .00
ID: 1 0.007 A .01
ID: 1 0.036 A .05
ID: 1 0.071 A .10
ID: 1 0.145 A .20
ID: 1 0.360 A .50
ID: 1 0.713 A 1.00
ID: 1 0.845 A 1.25

8SS/237

1-21-06

8282

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Raw Data Logbook

Hexavalent Chromium (Waters)

Colorimetric Analysis #0276

7 #3 cc/226 2/9/06

Curve Name: 226 1-21-06 9322

Date: 1-21-06

Batch No. 06021 027 603A

Automatic Pipette #: 908

Init./Emp. #: DJS/237

Std. Ref. (Book/Pg.): 60,689 p.72

Inst. #: 9322

Sample Number	Smpl. Vol. (mL)	D.F	pH	Sample Bl. pH	Time	Absorbance at 540 nm: Sample (A)	Sample Blank (B)	Reagent Blank (C)	Corr. Value (A-B)-C	Calc. Value (mg/L)	LOQ (mg/L)	Matrix Type	Comments
Blank	45	1	181	—	1140	—	—	.00	.000	N.D.	.02	—	✓
.2mg/l LCS	45	1	178	—		.144	—		.144	.203 (203)		—	4ml of 5mg/l (101%)
4693548 BK	45	1	193	174		.033	.003		.030	.037		WW	✓1330
Dup	45	1	184	170		.032	.003		.029	.036			✓D.
ms	100	1	178	165		.170	.001		.169	.239 (239)			✓Sp=.2mg/l +4ml of 5mg/l 101% (96%)
msd	100	1	192	191		.166	.000		.166	.235 (235)			✓Sp=.2mg/l +4ml of 5mg/l 99% (94%) R=2
4693549	45	1	194	182		.001	.001		.000	N.D.			✓1430 #3 m16 1/24/06
4693552	45	1	199	194		.003	.002		.001	N.D.			✓1455
4693554	45	1	191	196		.002	.002		.000	N.D.			✓1500
4693556	45	1	181	181		.004	.001		.003	N.D.			✓1555
4693540	45	1	176	180		.000	.000		.000	N.D.			✓Dup 2
4693387	45	1	174	172		.000	.000		.000	N.D.			✓FB
.6mg/l ccv	45	1	180	—	↓	.408	—	↓	.408	.59 (590)	↓	—	✓12ml of 5mg/l (98%)

D.F. = Dilution Factor

Verified By: M16/1/24 Date: 1/24/06

1118.02

8284

HEXAVALENT CHROMIUM

LANCASTER LABORATORIES

06021 027603A

085/237
1-21-06
#9322

21 JAN 2006 12:20:18
Application: ABS/%T/CONC
Test name:
Wavelength: 540.0
High limit: 99999.000
Low limit: -99999.000

ID: 1 0.000 A Blk
ID: 1 0.144 A .2ml LCS
ID: 1 0.033 A
ID: 1 0.003 A
ID: 1 0.032 A
ID: 1 0.003 A
ID: 1 0.170 A
ID: 1 0.001 A
ID: 1 0.166 A
ID: 1 0.000 A
ID: 1 0.001 A
ID: 1 0.001 A
ID: 1 0.003 A
ID: 1 0.002 A
ID: 1 0.002 A
ID: 1 0.004 A
ID: 1 0.001 A
ID: 1 -0.000 A
ID: 1 0.000 A
ID: 1 -0.000 A
ID: 1 0.408 A .6mg/ccv

4693548 BK
4693549
4693552
4693554
4693556
4693540
4693387

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Raw Data Logbook

Oxidation Reduction Potential 1821/7552

Std Ref (Book/pg): 60,689 p 75 Analysis #: 7552

Batch # 060251 751S 201A

Date: 1-25-06 Inst. #: 1053 Redox Soln = 477.9
Time: 1130 Upld Date: 1-25-06
Analyst: mwl/1026 Upld by: mwl/1026 LOQ = 10.0

	Sample Number	mV Rdg Trial 1	mV Rdg Trial 2	mV Rdg Average	Calc. Value (mV)	Batch Letter	QC#	Comments
		#3 mwl 1026 1-25-06						
1	LCS 4 (263)	273.2	271.2	272.2	272		1	10390
2	LCS 7 (86)	101.5	101.7	101.6	102		2	11890
3	4690648	112.7	111.7	112.2	112	A		
4	4690649	~~107.5~~ 116.0	115.5	115.75	116			
5	4690650	144.6	144.1	144.35	144			
6	4690651	142.1	145.9	144	144			
7	4690652	149.2	148.0	148.6	149			
8	4690653	136.7	135.9	136.3	136			
9	4690654	152.1	153.9	153	153			
10	4690655	146.7	147.4	147.05	147			
11	4691570	132.4	122.9	127.65	128			
12	4691571 U	45.6	38.1	41.85	42	B A		+ #3 mwl 1026 1-25-06
13	4691576 D	35.5	30.3	32.9	33			RPD=24 (15)
14	4691577	196.9	197.6	197.25	197	B		#3 mwl 1026 1-25-06
15	4691578	77.0	77.6	77.3	77			
16	4691579	99.0	99.8	99.4	99			
17	4691580U	35.8	30.2	33	33			
18	4691585D	27.0	24.2	25.6	26			RPD=25 (13)
19	4691586	37.9	40.6	39.25	39			
20	4693387	102.7	106.0	104.35	104			
21	LCS 4 (263)	273.0	272.7	272.85	273		1	10490
22	LCS 7 (86)	103.7	103.0	103.35	103		2	12090
23	#3 mwl 1026 1-25-06							
24								
25								
26								
27								
28								
29								
30								0285

Verified by: KAB/957 Date: 1/30/06

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Raw Data Logbook
pH (Analysis #0200)

soln C Ref. (Book/pg) 060689 p 70

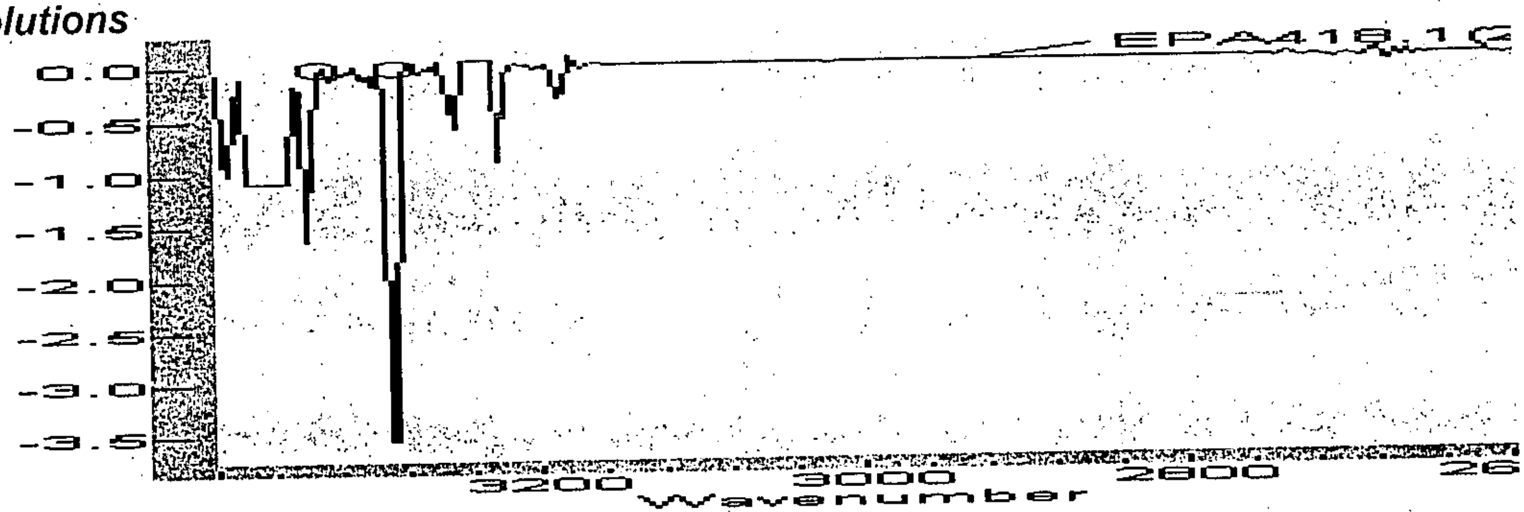
Batch # 0 6 0 2 1 | 0 2 0 | 0 0 1 A

LOQ= 0.01
Date: 1/2/06 Inst #: 2526
Time: 2300 Upld Date #: 1/21/06
Analyst: NRR1223 Upld by: NRR1223

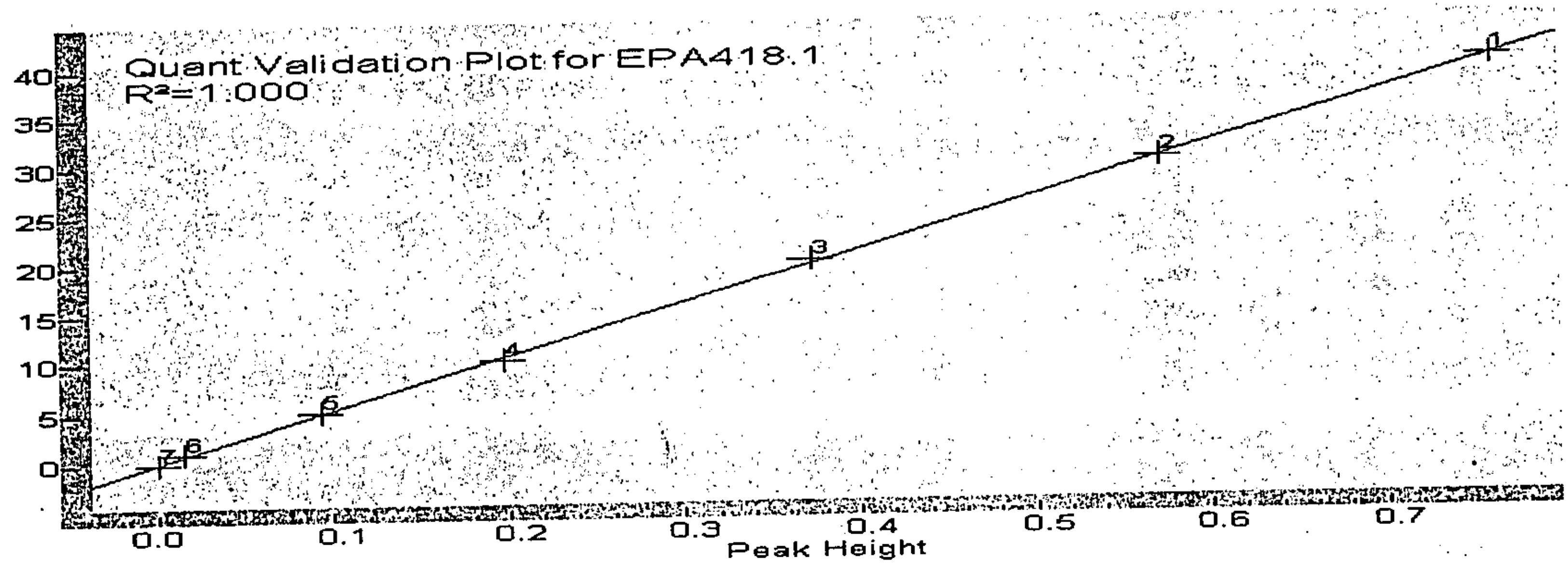
	Sample Number	Reading	Temp (°C)	Std. True Value	QC#	Batch letter	Comments
1	LCS	6.89	9.5	6.87	2	A	✓ soln (100%)
2	4693387	8.88	12.4				004A
3	4693387	8.87	12.4			✓	↓
4	4693481	11.09	12.7				012A
5	4693481	11.08	12.7			✓	↓
6	4693539	7.90	11.9				005B
7	4693539	7.90	11.9			✓	
8	4693540 U	7.80	10.7				
9	4693540 U	7.80	10.7			✓	
10	4693540 D	7.80	10.8				✓ RPD=0
11	4693540 D	7.80	10.8				↓
12	CCV	6.90	12.1			✓	100%
13	4693542	7.45	11.7				005B
14	4693542	7.45	11.7			✓	
15	4693543	7.34	11.6				
16	4693543	7.35	11.6			✓	
17	4693545	7.47	12.4				
18	4693545	7.47	12.4			✓	
19	4693546	7.79	11.6				
20	4693546	7.79	11.6			✓	
21	4693548	7.31	11.0				
22	4693548	7.32	11.0			✓	↓
23	CCV	6.90	13.9			↓ ✓	100%
24	4693549 U	7.43	12.3			B	005B
25	4693549 U	7.44	12.4			✓	
26	4693549 D	7.44	12.4				
27	4693549 D	7.44	12.4			✓	✓ RPD=0
28	4693551	7.80	11.5				028B
29	4693551	7.81	11.5			✓	
30	4693552	7.58	12.1			↓	↓

Verified by: MG 1/24 Date: 1/24/06

Digilab Resolutions



LANCASTER LABORATORIES



JAN 04 2006

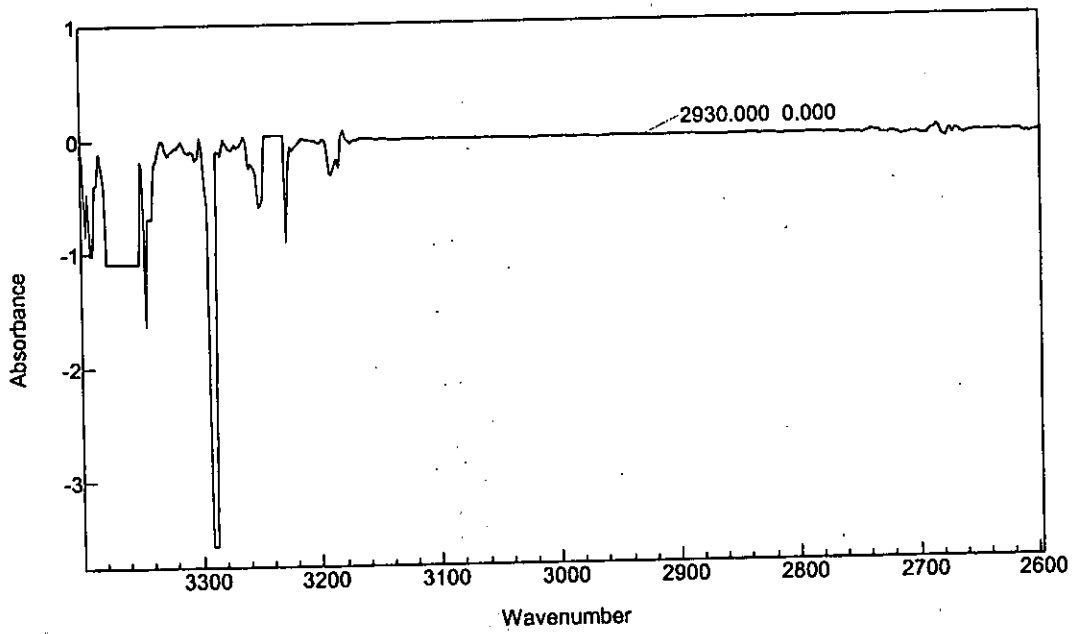
8287

1/4/06

KAB/957 1/9/06

Sample Code 0.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:12:09



LANCASTER LABORATORIES

JAN 04 2006

NW
1524
1/4/06

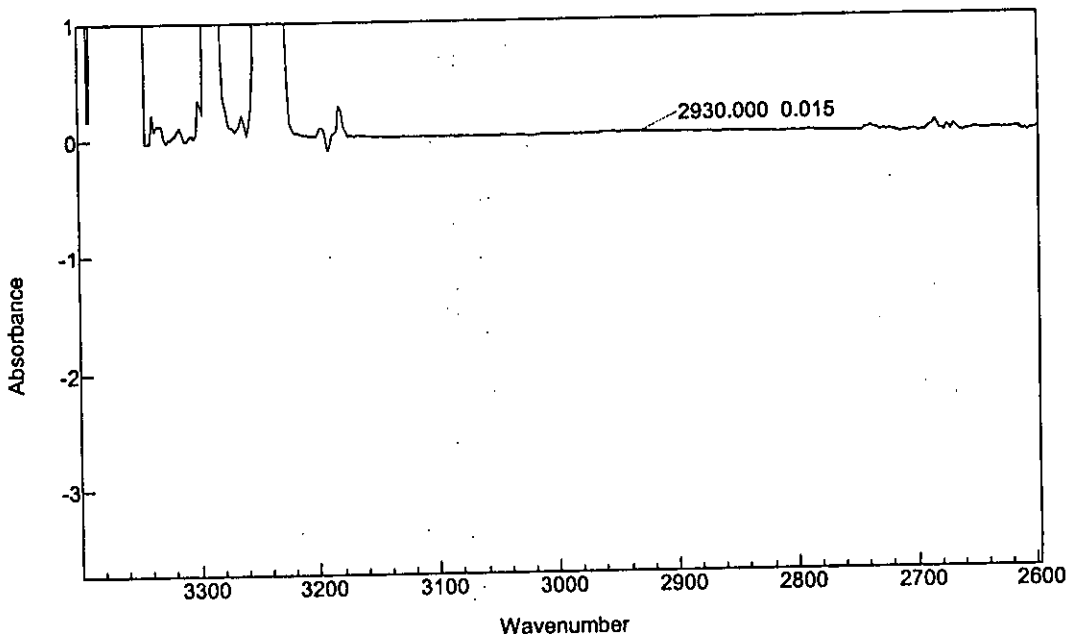
KAB/957
~~1/4/05~~ (3)
1/9/06

8288

Print

Sample Code 1.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:36:40



LANCASTER LABORATORIES

JAN 04 2006

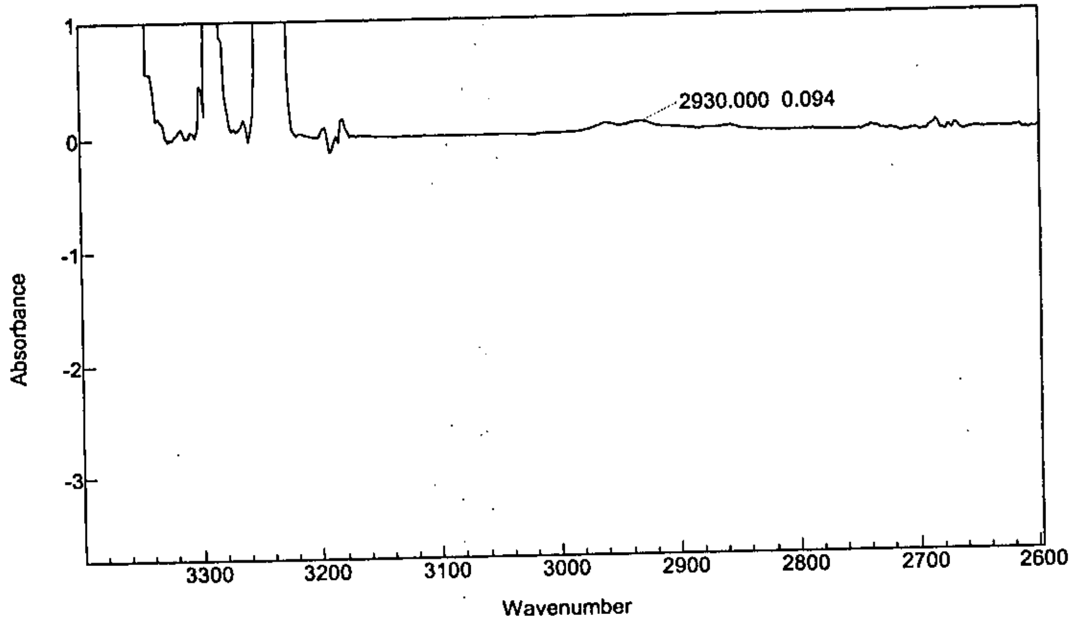
MW 1526 1/4/06 KAB/957 ~~1/9/06~~ 1/9/06

8289

Print

Sample Code 5.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:39:02



LANCASTER LABORATORIES

JAN 04 2006

NW 1526 1/4/06

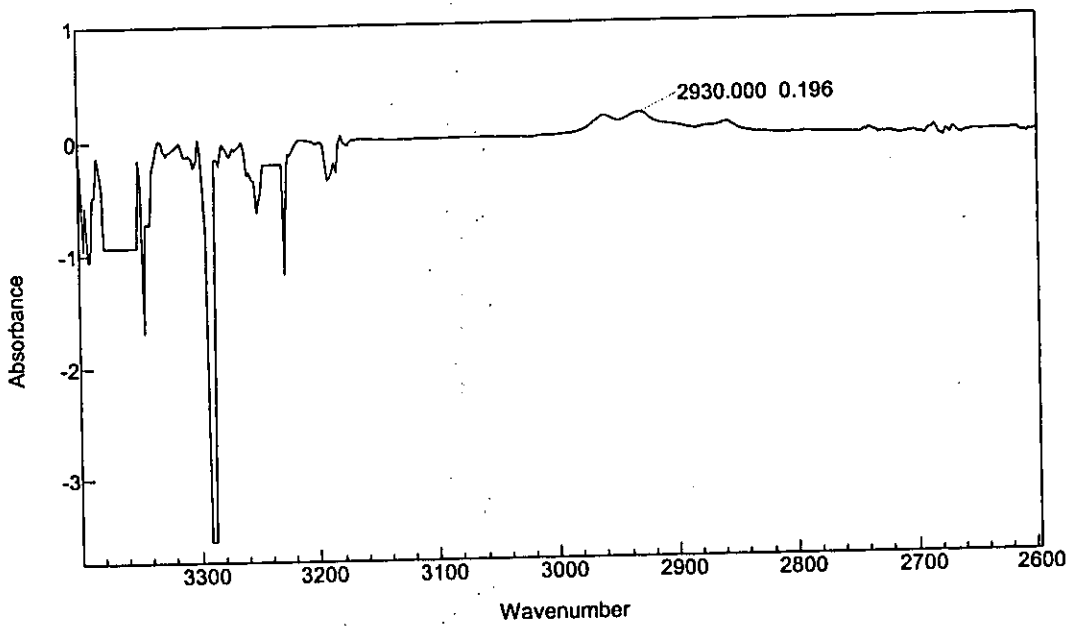
KAB 957 1/9/06

0218

Print

Sample Code 10.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:42:03



LANCASTER LABORATORIES

JAN 04 2006

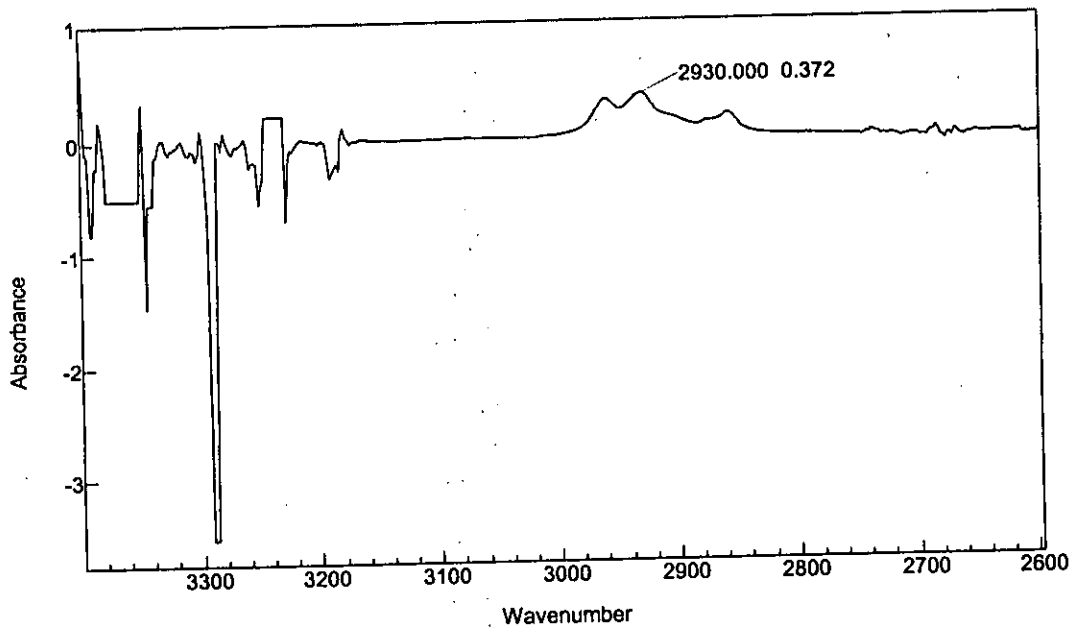
MW
1526
1/4/06
KAB/957
1/9/06

Print

Page4

Sample Code 20.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:44:48



LANCASTER LABORATORIES

JAN 04 2006

MW 1524 1/4/06

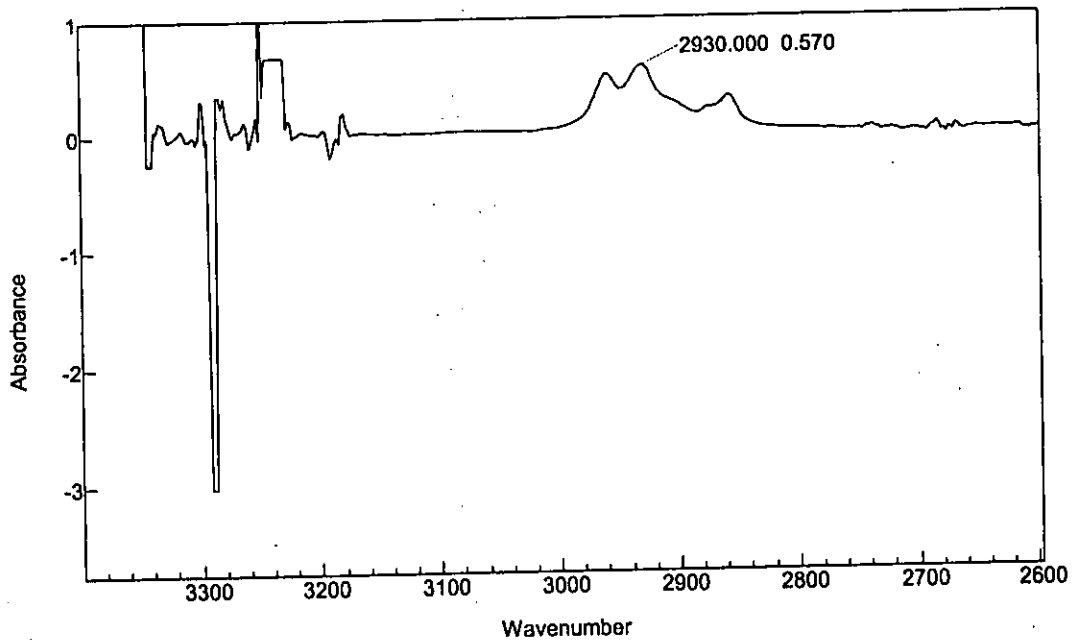
KAB/957 1/9/06

5212

Print

Sample Code 30.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:47:29



LANCASTER LABORATORIES

JAN 04 2006

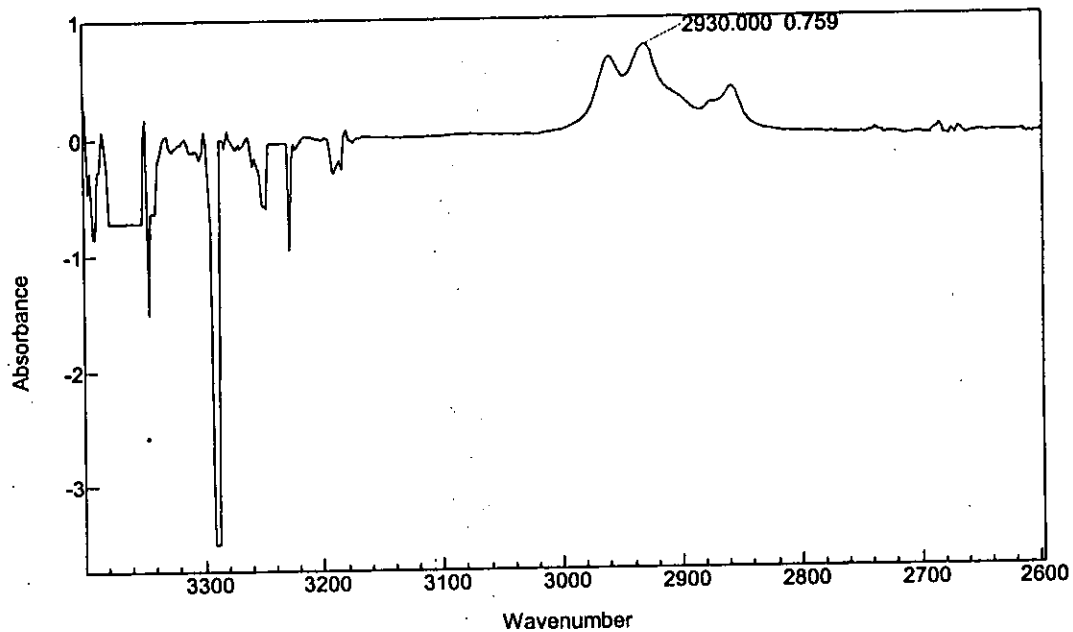
NW 1524 1/4/06 KAB/957 1/9/06

8213

Print

Sample Code 40.0 TPH concentration = mg/L

Time Stamp = Wednesday, January 04, 2006 09:50:15



LANCASTER LABORATORIES

JAN 04 2006

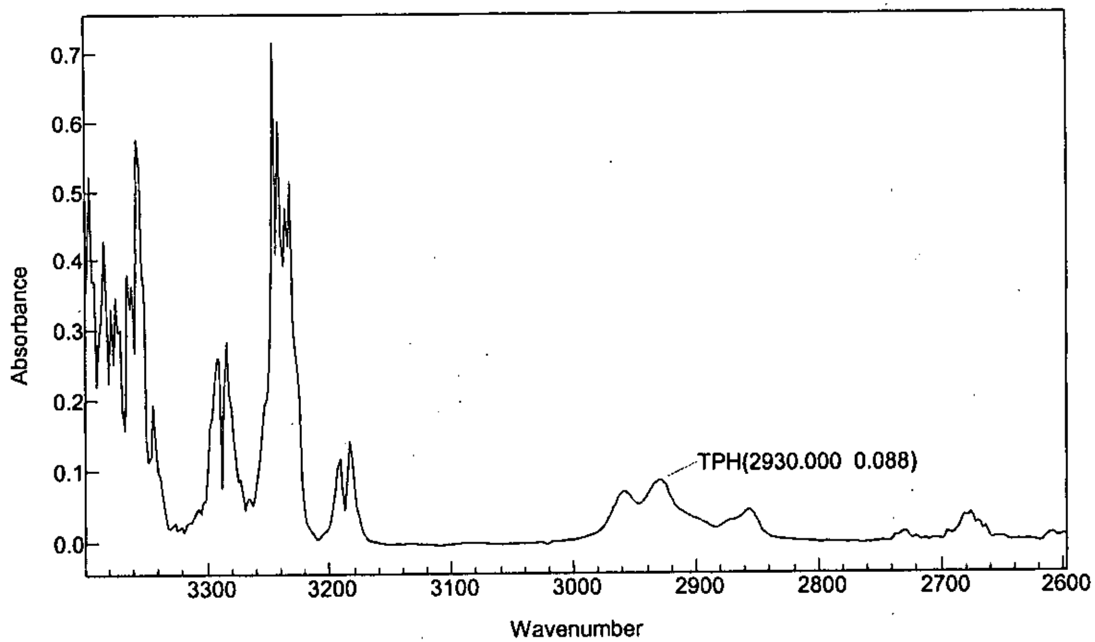
NW
1526
1/4/06
LAB/957
1/9/06

8214

Print

Sample Code ICV5MG/L-1 TPH concentration = 4.667 mg/L

Time Stamp = Friday, January 27, 2006 12:42:46



7390 incl Std (15)

mk 1026 1-27-06

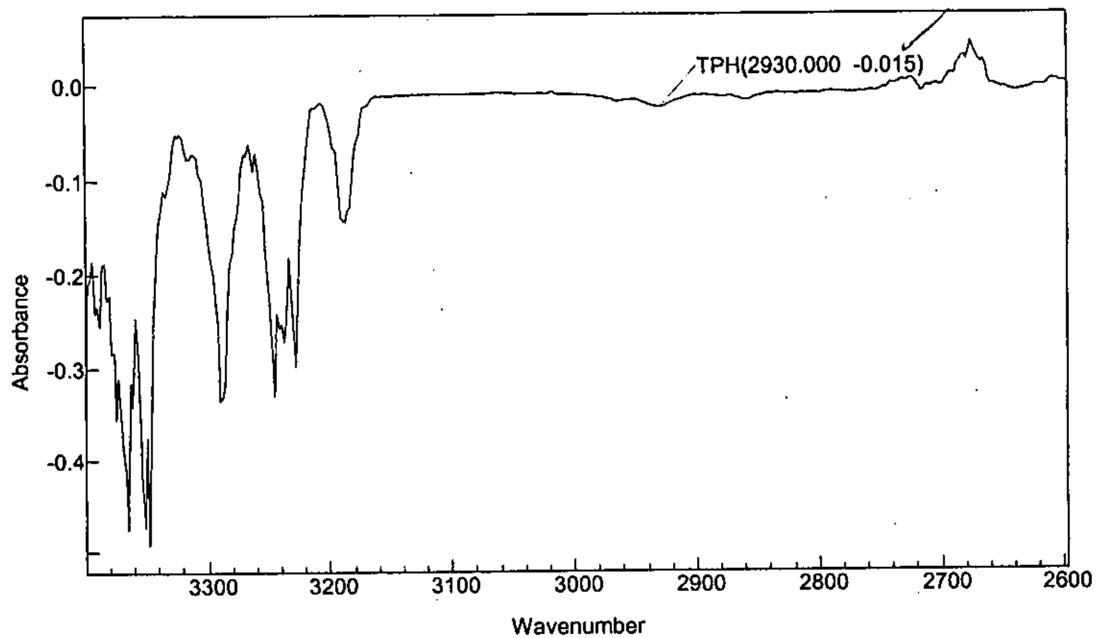
MG1124 2/1/06

0215

Print

Sample Code	ICB-2	TPH concentration =	-0.749	mg/L

Time Stamp = Friday, January 27, 2006 12:44:58



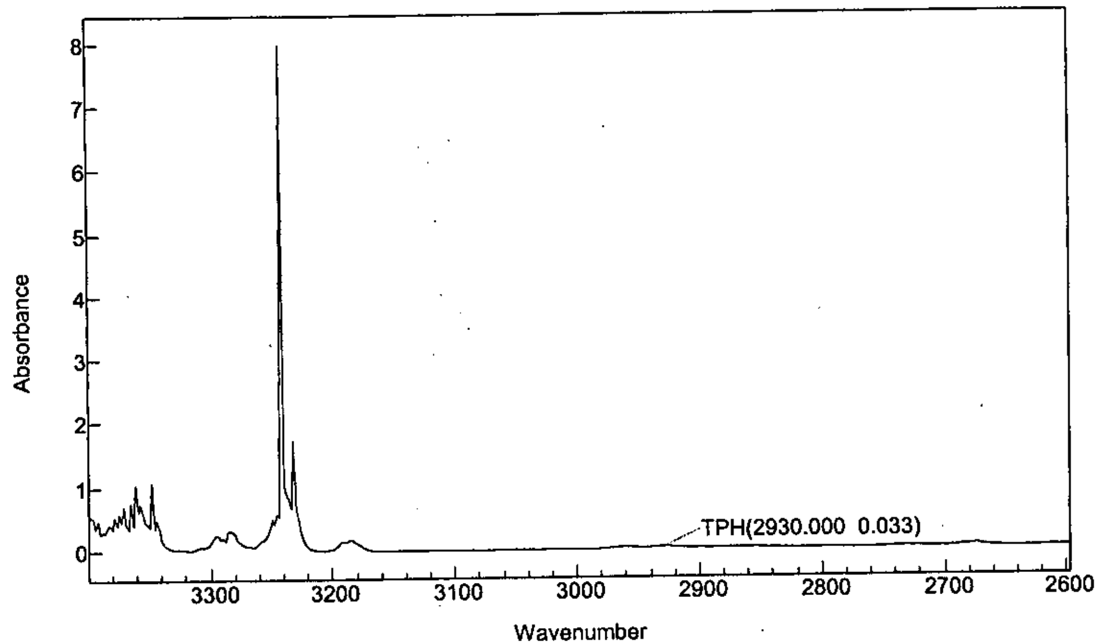
15
mw
1026
1-27-06

mw/1124
2/01/06

0216

Sample Code BLANK06027112601A-3 TPH concentration = 1.783 mg/L

Time Stamp = Friday, January 27, 2006 12:47:16



MW
1026
1-27-06
15

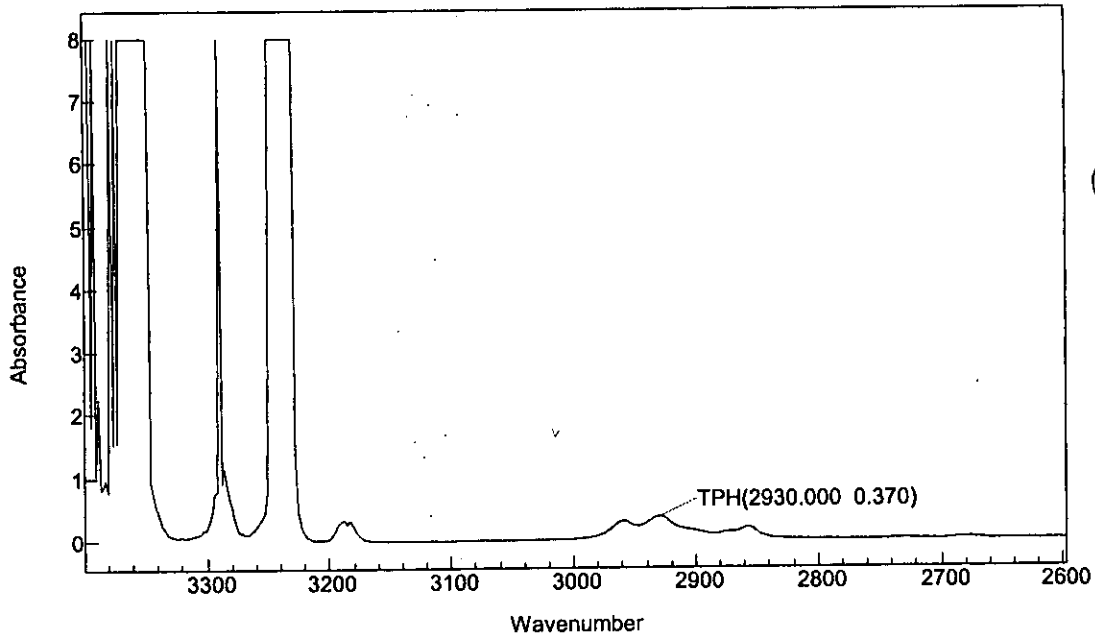
MIG/1124
2/01/06

0217

Print

Sample Code LCS06027112601A(5X)-4 TPH concentration = 19.531 mg/L

Time Stamp = Friday, January 27, 2006 12:49:26



8/90
(15)

MW
1026
1-27-06

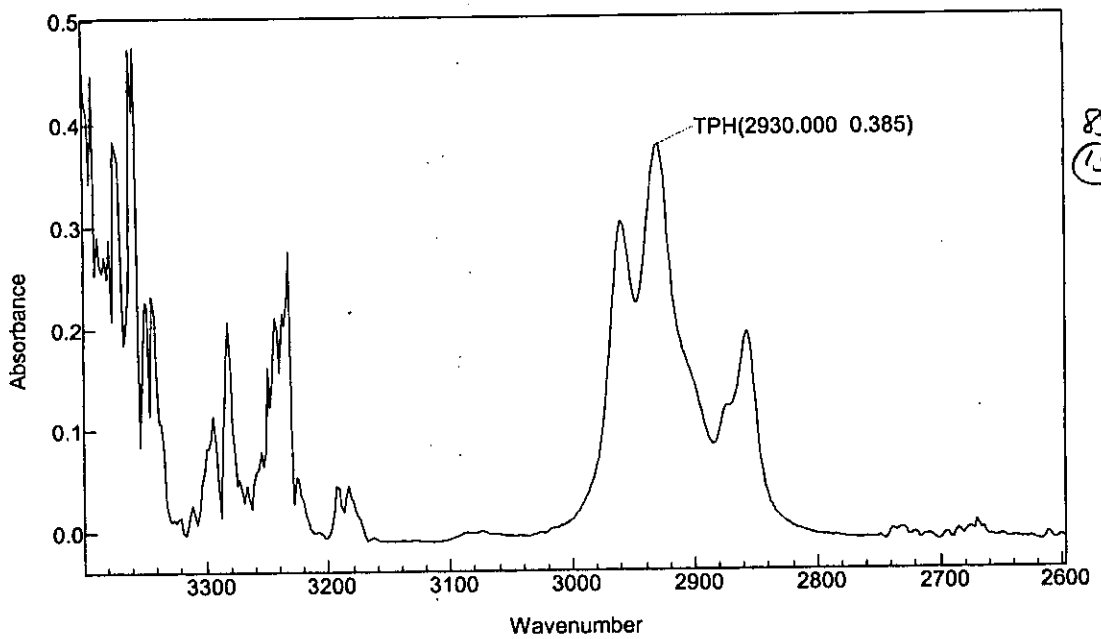
M14/1124
2/01/06

8218

Print

Sample Code LCSD06027112601A(5X)-5 TPH concentration = 20.334 mg/L

Time Stamp = Friday, January 27, 2006 12:51:58



85 %
(13)
RPD= 4 (15)

MLH
1026
1-27-06

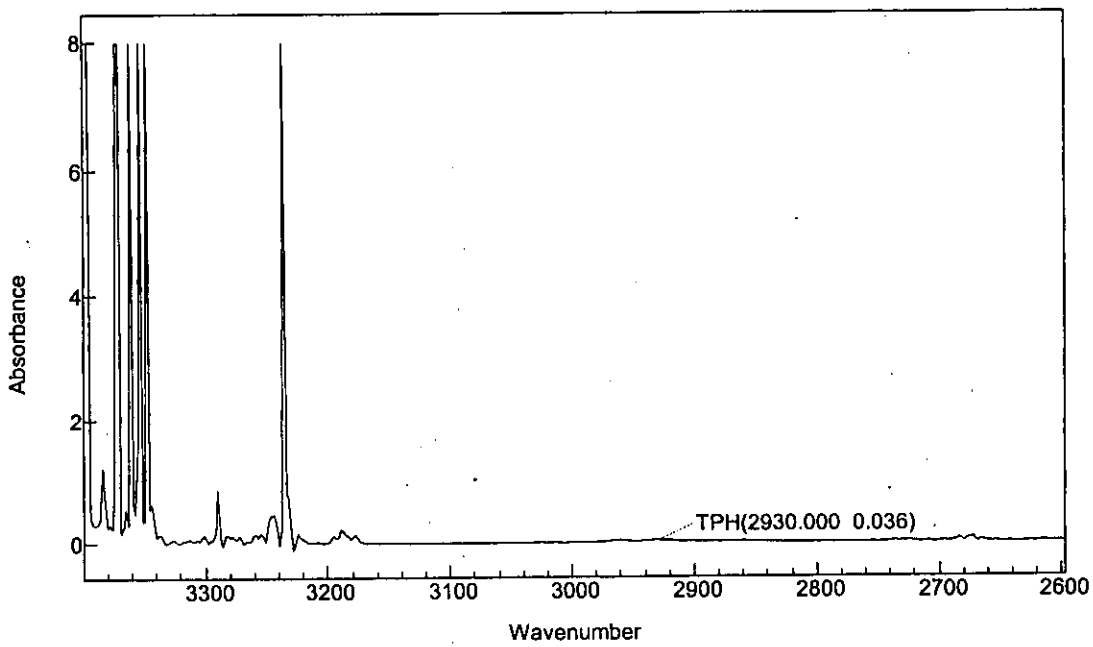
M16/1124
2/01/06

6128

Print

Sample Code 4693387/1126-6 TPH concentration = 1.944 mg/L

Time Stamp = Friday, January 27, 2006 13:32:01



MLH 1026 1-27-06

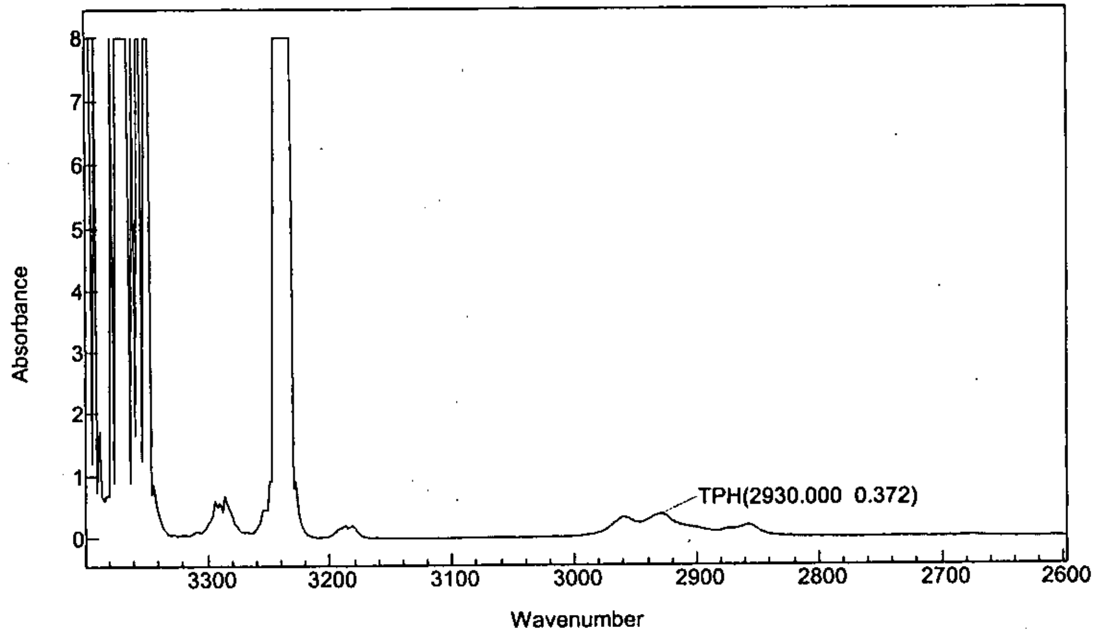
MB/1124 2/01/06

9228

Print

Sample Code	CCV20MG/L-13	TPH concentration =	19.630	mg/L

Time Stamp = Friday, January 27, 2006 13:51:36



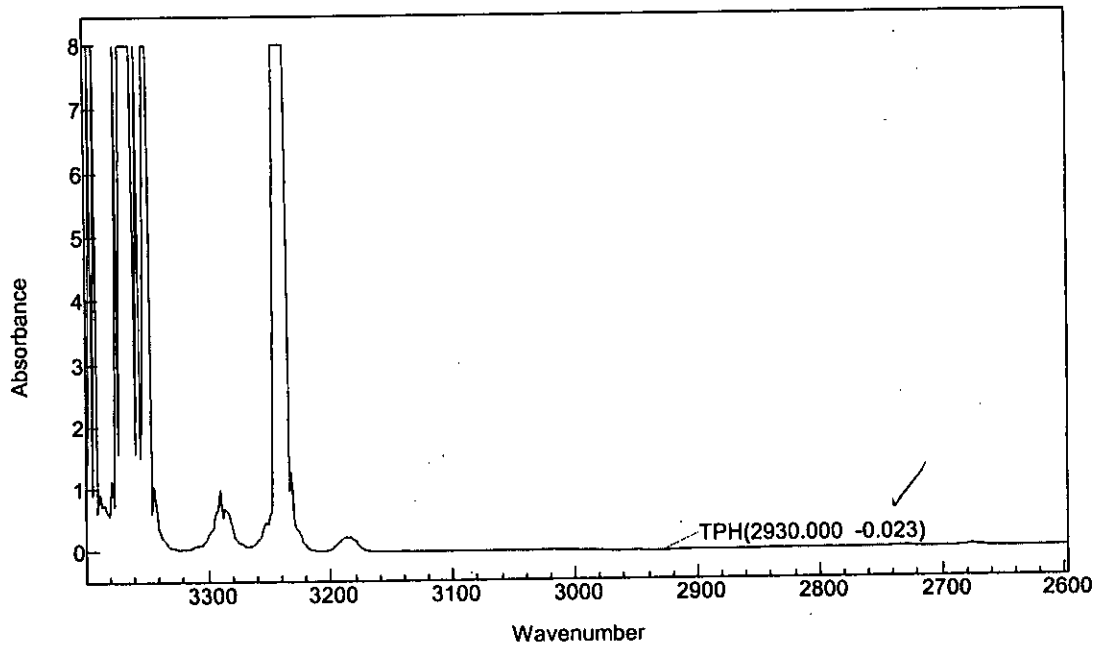
9890 ind Std (IS) mw 1026 1-27-06

MG/11/24 2/1/06

0221

Sample Code CCB-14 TPH concentration = -1.185 mg/L

Time Stamp = Friday, January 27, 2006 13:54:41



MW 1026 1-27-06

MW 1124 2/1/06

8222

Print

Extraction/Distillation/Digestion Logs

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Raw Data Extraction Prep Logbook
Petroleum Hydrocarbons in Water
Analysis #1126/8124

Prep Date 1-27-06
Time 0730
Initial/emp# mw/1026

Batch No. 06027 112 601 A

Std. Ref. (Book/Page): 23,317p 50(A) Analysis #: 1126 Freon Lot #: 96-007940 opened 1-26-06 IRCurve: 1-4-06

D.F. = Dilution Factor

Analysis Date	Time	Init./ Emp. #	Sample Number	Sampl Vol. (mL)	Prep D.F.	Final Vol of Extract (mL)	I.R. D.F.	Final D.F.	LOQ (mg/L)	Results (mg/L)	Comments
1-27-06	1247	mw 1026	Blank	1000	1	100	1	1	1.3	0.1783 N.D.	✓
	1249		ICS 12mg/L				5	5	1.5	9.7655	4.3ml of 4,000mg/L (81%)
	1251		ICSD				5	5		10.167	(85%) RPD=4
	1332		4693387	920			1	1	1.3	0.1944 N.D.	06A
	1334		4692932	50	20		1	20	30	~~0.5593~~ 11.2	black emul
	1336		4694934	870	1			1	1.3	~~0.5344~~ 0.6110	lite emul
	1338		4694935	830						0.53 ~~0.4317 N.D.~~	
	1341		4694936	840						0.52 ~~0.4372 N.D.~~	
	1345		4695431	840						0.2532 N.D.	cloudy
	1348		4695432	860						0.0888 N.D.	
	1356		4696391	920						0.3979 N.D.	
	~~1358~~ 1358	mw1026 1-27-06	4696392	950						0.3183 N.D.	
	1400		4696727	830						0.0258 N.D.	06B white emul
	1402		4696819	920						0.1575 N.D.	06A cloudy
	1404		4696820	~~930~~ 930						0.1898 N.D.	
	8224			mw1026 1-27-06							

#32116114 2/01/06

Verified by: MG/1124 Date: 2/01/06

1201.01

057058 49

Moisture Data

Lancaster Laboratories

CLIENT: Tierra Solutions, Inc.
SDG: PNV88

MOISTURE

SAMPLE NUMBERS:

Sample #	Sample Code
4692565	6005-
4692566	6020-
4692567	6014-
4692568	6007-
4692569	6024-
4692570	6028-
4692571	6008-
4692572	6010-

Laboratory Compliance Quality Control

Analysis Name	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 06024820003A	Sample number(s): 4692565-4692572				
Moisture	100		99-101		

Sample Matrix Quality Control

Analysis Name	BKG Conc	DUP Conc	RPD	RPD Max
Batch number: 06024820003A	Sample number(s): 4692565-4692572			
Moisture	12.0	13.2	9	15

* - Outside of specification
(1) - The result for one or both determinations was less than five times the LOQ.

Moisture Data Report

Batch #: 06024820003

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
LCS 89.5% Std.			1.1321	5.0073	1.6751	89.16	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692565BKG	A	01353	1.1335	6.4430	6.8002	12.05	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692565DUP	A	01353	1.1300	6.3661	6.6540	13.23	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692566	A	01353	1.1313	8.3771	8.3352	14.00	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692567	A	01353	1.1229	9.5116	9.4448	12.51	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692568	A	01353	1.1561	8.3266	8.5328	11.41	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692569	A	01353	1.1412	5.4814	5.8702	13.73	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692570	A	01353	1.1286	9.5148	9.3824	13.25	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692571	A	01353	1.1297	8.6115	8.5543	13.78	1/24/06 (1201/SWF)	1/25/06 (0236/CW)
4692572	A	01353	1.1351	8.5427	8.5507	13.19	1/24/06 (1201/SWF)	1/25/06 (0236/CW)

0226

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Type IV Organics Data Package
for
Tierra Solutions, Inc.

SDG# PNV88

Project: Painesville, OH
Soil and Water Samples
Collected on 01/19/06-01/20/06
Sample No. 4692565-4692572, 4693387, 4693470

PA Cert. # 36-037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521

Prepared by Jessica Baron

Reviewed by [signature]

Date 2/17/06

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Table of Contents for SDG# PNV88

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Sample Reference List for SDG Number PNV88 with a Data Package Type of IV-O

06101 - Tierra Solutions, Inc.

Project: Painesville, OH

Lab Sample Number	Lab Sample Code	Client Sample Description
4692565	6005-	TIE023:6005:S010030 Soil Sample
4692566	6020-	TIE023:6020:S010030 Soil Sample
4692567	6014-	TIE023:6014:S010030 Soil Sample
4692568	6007-	TIE023:6007:S010030 Soil Sample
4692569	6024-	TIE023:6024:S010030 Soil Sample
4692570	6028-	TIE023:6028:S010050 Soil Sample
4692571	6008-	TIE023:6008:S005020 Soil Sample
4692572	6010-	TIE023:6010:S005025 Soil Sample
4693387	EB1J-	TIE023:EB1:W012006 Grab Water Sample
4693470	TBPNV	Trip Blank Water Sample

Lancaster Laboratories

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METHODOLOGY SUMMARY/REFERENCE

7157 TCL Volatiles OLM03.2 (soils)

The sample or extract of the sample is analyzed by purge and trap GC/MS.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, OLM03.2

****

7156 TCL Volatiles OLM03.2 (water)

The sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, OLM03.2

****

4562 CLP Pesticides/PCB's in Solids

The sample is solvent extracted and cleaned up using GPC and a Florisil cartridge. The resulting extract is then quantitatively analyzed by gas chromatography with an electron capture detector.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, Multi Media, Multi Concentration, Number OLM03.2

****

4533 CLP Pesticides/PCB's in Water

The sample is solvent extracted and cleaned up using a Florisil cartridge. The resulting extract is quantitatively analyzed by gas chromatography with an electron capture detector.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, Multi Media, Multi Concentration, Number OLM01.8 or OLM03.2

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4372 TCL Semivolatiles GC/MS

The sample is solvent extracted and analyzed by GC/MS.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, OLM03.2

****

4438 TCL Semivolatiles GC/MS (3.2 SOW)

The sample is solvent extracted and analyzed by GC/MS.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, OLM03.2

****

3342 CLP Water Extraction

The sample is solvent extracted, dried, and concentrated. Florisil cleanup is used to minimize interferences.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, Multi Media, Multi Concentration, Number OLM01.8 or OLM03.2

****

4185 CLP Soil Extraction

The sample is solvent extracted using sonic probe. The extract is dried and concentrated. GPC and Florisil cleanups are used to minimize interferences.

Reference: USEPA Contract Laboratory Program, Statement of Work for Organic Analysis, Multi Media, Multi Concentration, Number OLM01.8 or OLM03.2

Case Narrative
Conformance/Nonconformance Summary

CASE NARRATIVE

Client: Tierra Solutions, Inc.
SDG#: PNV88

LANCASTER LABORATORIES
VOLATILES BY GC/MS

SAMPLE NUMBERS:

		Matrix		
LL #'s	Sample Code	Soil	Water	Comments
4692565	6005-	X		Unspiked
4692565	6005-MS	X		Matrix Spike
4692566	6020-	X		
4692567	6014-	X		
4692568	6007-	X		
4692569	6024-	X		
4692570	6028-	X		
4692571	6008-	X		
4692572	6010-	X		
4693387	EB1J-		X	Client Blank
4693470	TBPNV		X	Client Blank

LABORATORY SUBMITTED QC:

VBLKR37	VBLKR37	X		Method Blank
VBLKR34	VBLKR34		X	Method Blank
LCSR37	LCSR37	X		Lab Control Sample
LCDR37	LCDR37	X		Lab Control Sample Dup

SAMPLE PREPARATION:

The soil samples were collected in the field using EnCore™ samplers. Once submitted to Lancaster Laboratories, the samples were transferred into the appropriate pre-weighed containers and were re-weighed to determine the weight of the sample. Since an approximate amount of sample is collected in the field, the dilution factors may vary from sample to sample.

An effervescence check is performed on the samples requiring low level analyses. If the sample effervesces, the sample is transferred into a 40ml vial that already contains 5ml of DI water and a stir bar. The sample in DI water is frozen and later thawed prior to analysis. If the sample does not effervesce, the sample is transferred into a 40ml vial that already contains 5ml of a sodium bisulfate solution and a stir bar.

The weights for several samples were found to be outside the SW-846 Method 5035 requirement of 4.5g to 5.5g (EnCore™ sampler) when these samples were re-weighed at the laboratory. Please see the Vial Preparation sheets following the QC Raw Data section for more information.

No problems were encountered during the sample preparation for the VOA fraction.

ANALYSIS:

The method used for analysis was EPA CLP OLM03.2 SOW.

No problems were encountered during the analysis of these samples.

QUALITY CONTROL and NONCONFORMANCE SUMMARY:

Only client requested compounds are addressed in this narrative.

Sufficient sample was not available to perform an MSD for this SDG. However, an MS was performed. In addition, an LCS/LCD was performed to demonstrate precision and accuracy at a batch level.

All QC was within specifications.

DATA INTERPRETATION:

At the time of data package assembly it was determined that the original GC/MS volatile laboratory internal chain of custody for samples 4692565-72 was not completely filled out. See the chain of custody form for further information.

No further interpretation is necessary for the data submitted.

Case Narrative reviewed and approved by:

John F. Morton Date 2/9/06

John F. Morton, M.S., GC/MS Volatiles

CASE NARRATIVE

Client: Tierra Solutions, Inc.
SDG #: PNV88

LANCASTER LABORATORIES
SEMIVOLATILES BY GC/MS

SAMPLE NUMBER(S) :

		Matrix		
LL #'s	Sample Code	Soil	Water	Comments
4692565	6005-	X		Unspiked
4692565	6005-MS	X		Matrix Spike
4692565	6005-MSD	X		Matrix Spike Dup
4692566	6020-	X		
4692567	6014-	X		
4692568	6007-	X		
4692569	6024-	X		
4692570	6028-	X		
4692571	6008-	X		
4692572	6010-	X		
4693387	EB1J-		X	Client Blank
LABORATORY SUBMITTED QC:				
SBLKLB021	SBLKLB0218	X		Method Blank
SBLKWC025	SBLKWC0258		X	Method Blank
021LBLCS	021LBLCS8	X		Lab Control Sample
025WCLCS	025WCLCS8		X	Lab Control Sample
025WCLCSD	025WCLCSD8		X	Lab Control Sample Dup

SAMPLE PREPARATION:

No problems were encountered during the extraction of these samples.

ANALYSIS:

Case Narrative (continued)
SDG#: PNV88

The method used for analysis was EPA CLP OLM03.2 SOW.

Sufficient sample volume was not available to perform a MS/MSD for the analysis of EB1J-. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The 4-methylphenol value is a combination of results from both compounds.

No problems were encountered during the analysis of these samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

The recoveries of 4-nitrophenol were outside QC limits in 025WCLCS8 and 025WCLCSD8. The recovery of 2,4-dinitrotoluene was outside QC limits in 025WCLCS8.

All other QC was within specifications.

DATA INTERPRETATION:

Only non-conformances for client requested compounds are addressed in this case narrative.

The "X" flag on the form 1F indicates that the Tentatively Identified Compound could be an isomer of the given compound.

For the alkane series information refer to the attached forms.

No further interpretation is necessary for the data submitted.

Case Narrative (continued)
SDG#: PNV88

Case Narrative Reviewed and Approved by:

Date: 2-17-06

Charles J. Neslund
Manager, GC/MS Semivolatiles

EPA SAMPLE NO.

6005-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692565

Sample wt/vol: 30 (g/mL) g Lab File ID: hb062.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 12 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/06/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.917	420	J
2.		Unknown Alkane	20.679	580	J
3.		Unknown Alkane	21.680	420	J
4.		Unknown Alkane	22.334	600	J
5.		Unknown Alkane	23.900	520	J
6.		Unknown Alkane	24.593	370	J
7.		Unknown Alkane	25.377	760	J
8.		Unknown Alkane	26.707	360	J
9.		Unknown Alkane	27.899	340	J
10.		Unknown Alkane	29.966	290	J
11.		Unknown Alkane	30.882	410	J
12.		Unknown Alkane	31.748	500	J
13.		Unknown Alkane	32.604	620	J B
14.		Unknown Alkane	33.577	670	J
15.		Unknown Alkane	34.688	590	J
16.		Unknown Alkane	36.015	520	J
17.		Unknown Alkane	37.587	420	J
18.		Unknown Alkane	39.514	540	J
19.		Unknown Alkane	41.845	500	J
20.		Unknown Alkane	44.688	330	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EPA SAMPLE NO.

6020-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692566

Sample wt/vol: 30 (g/mL) g Lab File ID: hb063.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 14 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.913	460	J
2.		Unknown Alkane	20.676	580	J
3.		Unknown Alkane	21.677	440	J
4.		Unknown Alkane	22.342	610	J
5.		Unknown Alkane	23.900	540	J
6.		Unknown Alkane	24.594	390	J
7.		Unknown Alkane	25.380	810	J
8.		Unknown Alkane	26.712	360	J
9.		Unknown Alkane	27.896	370	J
10.		Unknown Alkane	28.971	300	J
11.		Unknown Alkane	29.958	320	J
12.		Unknown Alkane	30.886	430	J
13.		Unknown Alkane	31.745	440	J
14.		Unknown Alkane	32.612	650	J B
15.		Unknown Alkane	33.578	830	J
16.		Unknown Alkane	34.692	710	J
17.		Unknown Alkane	36.021	660	J
18.		Unknown Alkane	37.596	550	J
19.		Unknown Alkane	39.515	670	J
20.		Unknown Alkane	41.849	440	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

OLM03.0

EPA SAMPLE NO.

6014-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692567

Sample wt/vol: 30 (g/mL) g Lab File ID: hb064.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 12 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.912	580	J
2.		Unknown Alkane	20.676	610	J
3.		Unknown Alkane	21.677	450	J
4.		Unknown Alkane	22.342	650	J
5.		Unknown Alkane	23.900	580	J
6.		Unknown Alkane	24.595	340	J
7.		Unknown Alkane	25.381	500	J
8.		Unknown Alkane	25.420	500	J
9.		Unknown Alkane	26.713	410	J
10.		Unknown Alkane	26.792	260	J
11.		Unknown Alkane	27.897	380	J
12.		Unknown Alkane	28.973	310	J
13.		Unknown Alkane	29.959	340	J
14.		Unknown Alkane	30.887	320	J
15.		Unknown Alkane	31.746	350	J
16.		Unknown Alkane	32.604	280	J B
17.		Unknown Alkane	33.570	350	J
18.		Unknown Alkane	34.693	270	J
19.		Unknown Alkane	36.022	240	J
20.		Unknown Alkane	39.506	300	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

2812

OLM03.0

EPA SAMPLE NO.

6007-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692568

Sample wt/vol: 30 (g/mL) g Lab File ID: hb065.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 11 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.391	240	J
2.		Unknown Alkane	18.916	560	J
3.		Unknown Alkane	20.681	620	J
4.		Unknown Alkane	21.683	450	J
5.		Unknown Alkane	22.339	670	J
6.		Unknown Alkane	23.898	530	J
7.		Unknown Alkane	24.593	330	J
8.		Unknown Alkane	25.379	430	J
9.		Unknown Alkane	25.419	400	J
10.		Unknown Alkane	26.712	370	J
11.		Unknown Alkane	26.792	260	J
12.		Unknown Alkane	27.897	370	J
13.		Unknown Alkane	28.973	280	J
14.		Unknown Alkane	29.960	310	J
15.		Unknown Alkane	30.878	300	J
16.		Unknown Alkane	31.747	290	J
17.		Unknown Alkane	32.605	220	J B
18.		Unknown Alkane	33.570	230	J
19.		Unknown Alkane	34.694	240	J
20.		Unknown Alkane	39.497	240	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EPA SAMPLE NO.

6024-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692569

Sample wt/vol: 30 (g/mL) g Lab File ID: hb066.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 14 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.914	290	J
2.		Unknown Alkane	20.675	380	J
3.		Unknown Alkane	21.675	320	J
4.		Unknown Alkane	22.339	430	J
5.		Unknown Alkane	23.905	360	J
6.		Unknown Alkane	24.589	260	J
7.		Unknown Alkane	25.383	360	J
8.		Unknown Alkane	25.422	310	J
9.		Unknown Alkane	26.712	270	J
10.		Unknown Alkane	27.893	270	J
11.		Unknown Alkane	28.966	210	J
12.		Unknown Alkane	29.960	240	J
13.		Unknown Alkane	30.885	270	J
14.		Unknown Alkane	31.741	280	J
15.		Unknown Alkane	32.606	290	J B
16.		Unknown Alkane	33.570	310	J
17.		Unknown Alkane	34.691	280	J
18.		Unknown Alkane	36.007	240	J
19.		Unknown Alkane	39.487	220	J
20.		Unknown Alkane	41.819	220	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

2614

OLM03.0

EPA SAMPLE NO.

6028-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692570

Sample wt/vol: 30 (g/mL) g Lab File ID: hb067.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 13 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.913	570	J
2.		Unknown Alkane	20.678	700	J
3.		Unknown Alkane	21.680	470	J
4.		Unknown Alkane	22.336	800	J
5.		Unknown Alkane	23.906	690	J
6.		Unknown Alkane	24.592	380	J
7.		Unknown Alkane	25.378	1000	J
8.		Unknown Alkane	26.713	510	J
9.		Unknown Alkane	27.899	480	J
10.		Unknown Alkane	28.977	400	J
11.		Unknown Alkane	29.965	430	J
12.		Unknown Alkane	30.885	570	J
13.		Unknown Alkane	31.746	600	J
14.		Unknown Alkane	32.605	700	J B
15.		Unknown Alkane	33.574	710	J
16.		Unknown Alkane	34.690	660	J
17.		Unknown Alkane	36.011	560	J
18.		Unknown Alkane	37.589	460	J
19.		Unknown Alkane	39.500	560	J
20.		Unknown Alkane	41.826	450	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

0015

EPA SAMPLE NO.

6008-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692571

Sample wt/vol: 30 (g/mL) g Lab File ID: hb068.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 14 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.912	490	J
2.		Unknown Alkane	20.675	590	J
3.		Unknown Alkane	21.676	410	J
4.		Unknown Alkane	22.340	660	J
5.		Unknown Alkane	23.898	540	J
6.		Unknown Alkane	24.582	400	J
7.		Unknown Alkane	25.377	480	J
8.		Unknown Alkane	25.417	520	J
9.		Unknown Alkane	26.708	390	J
10.		Unknown Alkane	26.788	270	J
11.		Unknown Alkane	27.891	400	J
12.		Unknown Alkane	28.966	300	J
13.		Unknown Alkane	29.961	380	J
14.		Unknown Alkane	30.878	380	J
15.		Unknown Alkane	31.746	370	J
16.		Unknown Alkane	32.603	360	J B
17.		Unknown Alkane	33.568	360	J
18.		Unknown Alkane	34.691	280	J
19.		Unknown Alkane	36.009	300	J
20.		Unknown Alkane	41.826	290	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

OLM03.0

EPA SAMPLE NO.

6010-

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 4692572

Sample wt/vol: 30 (g/mL) g Lab File ID: hb069.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: 13 Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/07/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	18.915	680	J
2.		Unknown Alkane	20.680	740	J
3.		Unknown Alkane	21.682	500	J
4.		Unknown Alkane	22.337	810	J
5.		Unknown Alkane	23.897	700	J
6.		Unknown Alkane	24.582	460	J
7.		Unknown Alkane	25.379	620	J
8.		Unknown Alkane	25.418	590	J
9.		Unknown Alkane	26.712	510	J
10.		Unknown Alkane	26.792	320	J
11.		Unknown Alkane	27.898	510	J
12.		Unknown Alkane	28.976	410	J
13.		Unknown Alkane	29.964	450	J
14.		Unknown Alkane	30.884	470	J
15.		Unknown Alkane	31.744	450	J
16.		Unknown Alkane	32.604	330	J B
17.		Unknown Alkane	33.571	350	J
18.		Unknown Alkane	34.687	320	J
19.		Unknown Alkane	36.009	290	J
20.		Unknown Alkane	39.498	350	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

9817

OLM03.0

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ALKANE SUMMARY SHEET

SBLKLB0218

Lab Name: Lancaster Laboratories Contract:

Lab Code: LANCAS Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: SBLKLB021

Sample wt/vol: 30 (g/mL) g Lab File ID: hb057.d

Level: (low/med) LOW Date Received:

% Moisture: Decanted: (Y/N) Date Extracted: 01/23/06

Concentrated Extract Volume: 500 (uL) Date Analyzed: 02/06/06

Injection Volume: 2 (uL) Dilution Factor: 1

GPC Cleanup: Y pH: Extraction: Sonc

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Alkane	32.605	70	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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30.					

OLM03.0

Lancaster Laboratories

CLIENT: Tierra Solutions, Inc.
SDG: PNV88

LANCASTER LABORATORIES

CLP Pesticides/PCBs

		MATRIX			
LLI SAMPLE #	SAMPLE CODE	WATER	SOLID	LEACHATE	COMMENT
BLANKA	PBLKE8		X		Method Blank
4692565	6005-		X		Unspiked
4692565MS	6005-MS		X		Matrix Spike
4692565MSD	6005-MSD		X		Matrix Spike Dup
4692566	6020-		X		
4692567	6014-		X		
4692568	6007-		X		
4692569	6024-		X		
4692570	6028-		X		
4692571	6008-		X		
4692572	6010-		X		
BLANKA	PBLKFG	X			Method Blank
LCSA	LCSG8	X			Laboratory Control Spike
LCSDA	LCSD25	X			Laboratory Control Spike Dup
4693387	EB1J-	X			

A. Sample Preparation:

Florisil cleanup was used to minimize interferences in all samples. An additional GPC cleanup was used to minimize interferences in the soil samples. No other problems were encountered with the preparation of the samples.

B. Analysis:

The analysis was performed using the following runs:

- 1D1353, 1D1353B, 4D1353, 4D1353B

No problems were encountered. All continuing calibration data meet the method specification.

C. Quality Control:

All reported surrogates are within the QC limits.

The matrix spike data are within the QC limits.

The LCS data are within the QC limits.

Lancaster Laboratories, Inc. • 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

D. Data Interpretation:

The method blank was evaluated to the MDL. Values between the MDL and the LOQ are reported with a "J" qualifier.

Beta-BHC was detected in method blank PBLKFG at a level of 0.011 ug/l. Beta-BHC was also detected in the associated sample, EB1J-, at a level of 0.0052 ug/l.

No further interpretation is needed.

Data codes:

Data that indicates that manual integration was required would include the following codes:
1 = missed peak and 2 = improper baseline. The peaks that have been manually changed are indicated with an "M" on the raw data.

Narrative reviewed and approved by:

H. Lee S. Tl for: 2.6.06

Jenifer E. Hess, Manager Pesticide Residue Analysis **Date**

Lancaster Laboratories, Inc. • 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681

Chain-of-Custody Record

Hull & associates, inc.

6101/975061/4692565-72

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

NO. 7959

☐ **Dublin, OH** 6397 Emerald Parkway Suite 200 Dublin, OH 43016 Phone: (614)793-8777 Fax: (614)793-9070
☐ **Indianapolis, IN** 6330 E. 75th St. Suite 174 Indianapolis, IN 46250 Phone: (317)558-0558 Fax: (317)558-0553
☐ **Mason, OH** 4900 Parkway Dr. Suite 100 Mason, OH 45040 Phone: (513)459-9677 Fax: (513)459-9869
☒ **Solon, OH** 6161 Cochran Road Suite A Solon, OH 44139 Phone: (440)519-2555 Fax: (440)519-2560
☐ **Toledo, OH** 3401 Glendale Ave. Suite 300 Toledo, OH 43614 Phone: (419)385-2018 Fax: (419)385-5487

REPORT TO: BILL BEACH

Client: TIERRA SOLUTIONS INC.
Site: PAINESVILLE
Project #: TIE 023 Phase:
Samplers: M. TENNYSON

SAMPLE TYPES: A - AIR, C - ASBESTOS, D - SEDIMENT, G - GROUNDWATER, P - PRODUCT, S - SOIL, W - WATER, Z - OTHERS

PRESERVATIVES: A - Cool only, <4 deg. C; B - HNO_3 pH<2; C - H_2SO_4 pH<2; D - NaOH pH>12; E - ZnAcetate + NaOH, pH>9; F - $Na_2S_2O_3$ (0.008%); G - HCL pH <2

METALS: F - FILTERED; N - NOT FILTERED; B - BOTH

All samples are kept at 4 degrees Celsius.

ANALYSES / PRESERVATIVES: MOISTURE | PESTICIDES, PCB's | SEMIVOLATILES | VOLATILES 3 | TAL metals + CN | Per J. Maleki 1/20/06 WAK

PROJECT NO.	SAMPLE LOCATION	SAMPLE TYPE & ID	NO. OF CONT.	METALS	COLLECTION DATE/TIME	MOISTURE	PESTICIDES, PCB's	SEMIVOLATILES	VOLATILES 3	TAL metals + CN					COMMENTS
TIE023	6005	S010030	5		1/19/06 16:40	X	X	X	X						ORP
↓	6020	S010030	5		1/19/06 10:45	X	X	X	X						Add TOC + [illegible]
	6014	S010030	5		1/19/06 9:15	X	X	X	X						per B. Beach
	6007	S010030	5		1/19/06 11:55	X	X	X	X						WAK
	6024	S010030	5		1/19/06 9:45	X	X	X	X						1/23/06
	6028	S010050	5		1/19/06 10:25	X	X	X	X						
	6008	S005020	5		1/19/06 11:30	X	X	X	X						
	6010	S005025	5		1/19/06 11:10	X	X	X	X						
	:	:			/										
	:	:			/										
	:	:			/										
	:	:			/										

RELINQUISHED BY:		RECEIVED BY:	
M. Tennyson	DATE: 1/19/06 TIME: 1700		DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED BY:	DATE: TIME:
RELINQUISHED BY:	DATE: TIME:	RECEIVED FOR LAB BY: Kathy Binkley	DATE: 1-20-06 TIME: 0900

COOLER TEMPERATURE AS RECEIVED: 6. °C

DISTRIBUTION: WHITE - LAB USE (MUST BE RETURNED WITH REPORT); YELLOW - LAB USE; PINK - RETAINED BY HULL

Deliver To: LANCASTER LABS
Method of Delivery: FED-EX
Airbill Number: 8543 6662 9396
NOTES:

TURN AROUND TIME: STANDARD DAYS

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Tierra Solutions (OH.) Inc

Date of Receipt: 1-20-06

Time of Receipt: 0900

Source Code: SO-1

Shipping Container Sealed: Y / N

Custody Seal Present: Y / (N)

Custody Seal Intact: Y / N / (NA)

Package (Chilled) / Not Chilled

Unpacker Emp. No.: 1255

Temperature of Shipping Containers	
#1	#2
Thermometer ID: 10559	Thermometer ID:
Temp.: 6.0°	Temp.:
Temp. Bottle / (Surface Temp.)	Temp. Bottle / Surface Temp.
(Wet Ice) / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? (Y) / N Loose / (Bagged)	Ice Present? Y / N Loose / Bagged
#3	#4
Thermometer ID:	Thermometer ID:
Temp.:	Temp.:
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N Loose / Bagged	Ice Present? Y / N Loose / Bagged

Paperwork Discrepancy/Unpacking Problems: Tie 023-6005-S010030 (1) Encore ID label missing the S

Tie 023-6008-S005020 (received 3 Encores w/ dif ID labels)

[redacted] Encores

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
KatelynBinkley	1-20-06	1030	Unpacking / Storage
DA Westlund	1/20/06	1115	Place in Storage or (Entry)
			Remove from Storage
			Place in Storage or Entry
			Entry

0823

Hull & associates, inc.

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

6101/975214/4693387 NO. 7960
975220/4693470

☐ Dublin, OH — 6397 Emerald Parkway, Suite 200, Dublin, OH 43016, Phone: (614)793-8777, Fax: (614)793-9070
☐ Indianapolis, IN — 6330 E. 75th St., Suite 174, Indianapolis, IN 46250, Phone: (317)558-0558, Fax: (317)558-0553
☐ Mason, OH — 4900 Parkway Dr., Suite 100, Mason, OH 45040, Phone: (513)459-9677, Fax: (513)459-6869
☒ Solon, OH — 6161 Cochran Road, Suite A, Solon, OH 44139, Phone: (440)519-2555, Fax: (440)519-2560
☐ Toledo, OH — 3401 Glendale Ave., Suite 300, Toledo, OH 43614, Phone: (419)385-2018, Fax: (419)385-5487

REPORT TO: BILL BEACH

Client: TIERRA SOL INC.
Site: PAINESVILLE
Project #: TIE 023 Phase:
Samplers: J. MIELECKI / M. TENNYSON

SAMPLE TYPES: A - AIR; C - ASBESTOS; D - SEDIMENT; G - GROUNDWATER; P - PRODUCT; S - SOIL; W - WATER; Z - OTHERS

PRESERVATIVES: A - Cool only, <4 deg. C; B - HNO_3 pH<2; C - H_2SO_4 pH<2; D - NaOH pH>12; E - ZnAcetate + NaOH, pH>9; F - H_2S O (0.08%); G - HCL pH <2

METALS: F - FILTERED; N - NOT FILTERED; B - BOTH

All samples are kept at 4 degrees Celsius.

ANALYSES

PRESERVATIVES: D | NON | HCl | B

PROJECT NO.	SAMPLE LOCATION	SAMPLE TYPE & ID	NO. OF CONT.	METALS	COLLECTION DATE/TIME	CN TOTAL	HEX CR ORP, pH	TOTAL PETROLEUM HYDROCARBONS	METALS	VOLATILES	COMMENTS
	:	:	14		/						no TPH per B. Beach walk 1/23/06
TIE 023	: EB1	: W012006	13	✓	1/20/06 14:00	X	X	X	X	X	
	:	:			/						
	:	:			/						
	:	:			/						
	:	:			/						TB submitted walk 1/23/06
	:	:			/						
	:	:			/						
	:	:			/						
	:	:			/						
	:	:			/						
	:	:			/						

RELINQUISHED BY: L. Mielecki — DATE: 1-20-06 — TIME: 16:00
RELINQUISHED BY: — DATE: — TIME:
RELINQUISHED BY: — DATE: — TIME:
COOLER TEMPERATURE AS RECEIVED: 3.5° °C

RECEIVED BY: — DATE: — TIME:
RECEIVED BY: — DATE: — TIME:
RECEIVED FOR LAB BY: — DATE: 1/21/06 — TIME: 1030

DISTRIBUTION:
WHITE - LAB USE (MUST BE RETURNED WITH REPORT)
YELLOW - LAB USE
PINK - RETAINED BY HULL

Deliver To: LANCASTER LAB
Method of Delivery: FED-EX
Airbill Number: 8543 6662 9385
NOTES:

TURN AROUND TIME: STANDARD DAYS

FNV88-09

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Tierra Solutions Inc

Date of Receipt: 1/21/06

Time of Receipt: 1030

Source Code: 50-1

Shipping Container Sealed: (Y) / N

Custody Seal Present: (Y) / N

Custody Seal Intact: (Y) / N / NA

Package: (Chilled) / Not Chilled

Unpacker Emp. No.: 1696

Temperature of Shipping Containers	
#1	#2
Thermometer ID: 429983	Thermometer ID:
Temp.: 3.5°	Temp.:
(Temp. Bottle) / Surface Temp.	Temp. Bottle / Surface Temp.
(Wet Ice) / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? (Y) N Loose / (Bagged)	Ice Present? Y / N Loose / Bagged
#3	#4
Thermometer ID:	Thermometer ID:
Temp.:	Temp.:
Temp. Bottle / Surface Temp.	Temp. Bottle / Surface Temp.
Wet Ice / Dry Ice / Ice Packs	Wet Ice / Dry Ice / Ice Packs
Ice Present? Y / N Loose / Bagged	Ice Present? Y / N Loose / Bagged

Paperwork Discrepancy/Unpacking Problems: received 6 trip blanks

Sample Administration Internal Chain of Custody			
Name	Date	Time	Reason for Transfer
Jayson Tbach	1/21/06	1045	Unpacking to Storage
	1/21/06	1133	Place in Storage or (Entry)
			Remove from Storage
			Place in Storage or Entry
			Entry 8825

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Secure Storage Chain of Custody
Original Sample

Client/Project: Tierra Solutions, Inc – Painesville, OH

Preservative: HCl Matrix: WW SDG: PNV68 88 *

Sample # Range of Entry Group: 4693387 , 470* Bottle Type: (38) 40 ml glass vial

* - Jan/326, 2/8/06

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
4693387, 470	(964)	VOA Storage	1/21/06	1330	Entry to Storage	
4693387, 470	VOA STORAGE	SLD/1551	01/23/06	08:15	transfer	
4693387, 470	SLD/1551	Dept. 21 STORAGE	01/23/06	08:30	STORAGE	
4693387, 470	Dept 21 Storage	[illegible] 1/24/06	1/24/06	14:30	GCMS VOA analysis #7156	
4693387, 470	[illegible]	J. Long 1693	1/24/06	16:30	shift change	
4693387, 470	J. Long 1693	Dept 21 Storage	1/24/06	21:20	Analysis complete	
						8826

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Secure Storage Chain of Custody
Subsample

Client/Project: Tierra Solutions, Inc.

Preservative: Sodium Bisulfate   Matrix: SW

Sample # Range for Entry Group: 4692565-72   Bottle Type: 193

SDG: PNY88

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
4692565-72	1292 S. Bowers	DP.21 Storage	1-20-06		Storage	
4692565-72	Dept 21 storage	Sn M Sn/483	1/26/06	01:30	01/MSVOA analysis H75	01 01/483 1/26/06
4692565-72	Sn M Sn/483	HP7506 autosampler	1/26/06	2:00	HP7506 auto-analysis	
4692565-72	*	HP7506 autosampler	1/26/06	*	HP7506 auto analysis	
4692565-72	HP7506 autosampler	Sn M Sn/483	1/31/06	07:25	shift change	
4692565-72	Sn M Sn/483	Dept 21 Storage	1/31/06	08:00	Dept 21 Storage	

0027

* COC was broken not signed for shift change by JMC on 1/26/06 and then signed back to autosampler

2355 Rev. 04/15/99

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Secure Storage Chain of Custody
Original Sample

Client/Project: Tierra Solutions, Inc – Painesville, OH

Preservative: Na2S2O3 Matrix: WW SDG: PNV88

Sample # Range of Entry Group: 4693387,470 Bottle Type: (30) 1000 ml amber glass

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
4693387	(964)	SA Hold Storage	1/21/06	1330	Entry to Storage	
4693387	SA hold storage	main storage	1-24-06	9:40	storage	
4693387	main storage	Association 1313	1-26-06	0900	Pesticide Extraction	X
4693387	Association 1313	main storage	1-26-06	1315	Storage	

2016.01

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2425 New Holland Pike • Lancaster, PA 17601

Secure Storage Chain of Custody
Original Sample

Client/Project: Tierra Solutions, Inc – Painesville, OH

Preservative: Na2S2O3 Matrix: WW SDG: PNV88

Sample # Range of Entry Group: 4693387,470 Bottle Type: (45) 1000 ml amber glass

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
4693387	(4961)	SA Hold Storage	1/21/06	1330	Entry to Storage	
4693387	SA hold storage	JLM1532	1-24-06	60:10	transfer to storage	
4693387	JLM1532	storage	1-24-06	01:00	entry to storage	
						8829

Lancaster Laboratories
3425 New Holland Pike • Lancaster, PA 17601-5994

Secure Storage Chain of Custody
Supplemental Information

Client/Project: Tierra Solutions, Inc.

Preservative: _____ Matrix: WW

Sample # Range for Entry Group: 4693387 Bottle Type: 45 - 1000 ml.

SDG: # PNV88-09 EB

CLH 1648 1-26-06

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
4693387	SA Storage	CLH 1648	1-26-06	14:25	supplemental chain	
4693387	main Storage	D Turnley 277	1-26-06	0850	CLP N20 prep	X
4963387	D Turnley 277	Main Storage	1-26-06	150	Storage	

This form has been designed to accompany the original sample chain of custody. It provides additional information for periods of time when the sample group is split and individual samples are in the custody of different personnel.

Secure Storage Chain of Custody
Subsample

Client/Project: TierraSolutions, Inc-Painesville, OH

Preservative: NONE

Matrix: Soil

Sample # Range for Entry Group: 46925565-72

Bottle Type: ~~(2) 1000ml glass~~ Composite (20) 500ml glass

SDG: PNV88

Sample Number(s) in Custody	Released By	Received By	Date of Transfer	Time of Transfer	Reason for Change of Custody	Dist., Extr., or Digest Chain Created (X)
46925565-72	SFreisha 1201	main Storage	1-20-06	1435	Storage	
46925565-72	Main Storage	MM1424	1-23-06	5:30	715 Semi Soil Sonication	
46925565-72	MM1424	Main storage	1-23-06	6:00	storage	
46925565-72	main storage	Pmg/234	1/23/06	1700	PH	
46925565-72	Pmg/234	main storage	1/23/06	1900	storage.	
46925565-72	main Storage	SFreisha 1201	1-24-06	1715	Moist.	
46925565-72	SFreisha 1201	main Storage	1-24-06	1736	Storage	
46925565-72	main storage	Daniel S. Scott (237)	1-24-06	2135	Cr^{+6} digest	X
46925565-72	Daniel S. Scott (237)	main storage	1-25-06	0235	storage	
46925565-72	Main Storage	dCavalier 1313	1-25-06	0600	CLP Pest Extraction	X
46925565-72	dCavalier 1313	main Storage	1-25-06	0610	Storage	
46925565-72	Main Storage	CYTcian 1242	01-25-06	10:45	CN prep	X
46925565-72	CYTcian 1242	Main storage	01-25-06	12:15	Storage	
46925565-72	main storage	Daniel S. Scott (237)	1-25-06	2100	Cr^{+6} digest	
46925565-72	Daniel S. Scott (237)	main storage	1-26-06	0330	storage	
46925565-72	main Storage	Microdig 1026	1-30-06	0730	ORP TSS2	
46925565-72	~~main~~ Microdig 1026	main storage	1-30-06	0745	Storage	

#3 MW 1826 1-30-06

Lancaster Laboratories

Organic Extraction
Secure Storage Chain of Custody
Extract

BATCH NO. 06021SLB026

Client Tierra Solutions, Inc.

SDG: PNV88

Analysis: Semivolatiles CLP Soils

Sample IDs

4692565	4692566	4692567	4692568	4692569	4692570	4692571	4692572

Sample Number(s)	Released by	Received by	Date	Time	Reason for Change of Custody
4692565-572	MM11424	Dept 26 Storage REEC 6435	1-23-06	9:00	Storage
4692565-572	D26 storage	J2 GPC	1-24-06	17:00	Load on GPC for Cleanup
4692565-572	J2 GPC	MM11424	1-24-06	9:00	Concentration
4692565-572	MM11424	Dept 26 Storage	1-25-06	20:00	Storage
4692565-572	Dept 26 Storage	[signature]	01/30/06	23:05	CLP ANALYSIS
4692565-572	[signature]	HP07629	01/30/06	23:06	PLACED ON INSTRUMENT
4692565-572	HP07629	(346) [signature]	2-7-06	AM 10:30	RELAP
4692565-572	[signature] 346	Dept 26 Storage	2-7-06	AM 10:55	STORAGE

8832

Lancaster Laboratories

Organic Extraction
Secure Storage Chain of Custody
Extract

BATCH NO. 06025WAC026

Client Tierra Solutions, Inc.

SDG: PNV88

Analysis: Semivolatiles CLP Waters

Sample IDs

4693387

Sample Number(s)	Released by	Received by	Date	Time	Reason for Change of Custody
4693387	D Trimby 277	Liq/Liq extractor	1/26/06	1430	CLP No prep
4693387	Liq/Liq extractor	Dept 36 storage	1/27/06	0930	Storage
4693387	Dept 36 storage	MM1426	1/26/06	9:00	Concentration (3) MM1426 1-26-06
4693387	MM1426	Dept 36 storage	1-28-06	10:00	storage
4693387	DEPT 36 STORAGE	[illegible]	02/01/06	19:10	CLP ANALYSIS
4693387	[illegible]	HP09029 (3) MM1426	02/01/06	19:11	PLACED ON INSTRUMENT
4693387	HP09029	[illegible]	02/08/06	1:15	REMOVED FROM INSTRUMENT
4693387	[illegible]	DEPT 36 STORAGE	02/08/06	1:16	STORAGE

Lancaster Laboratories

Organic Extraction
Secure Storage Chain of Custody
Extract

BATCH NO. 060240016A

Client Tierra Solutions, Inc.

SDG: PNV88

Analysis: Pesticides CLP Soils

Sample IDs

4692565	4692566	4692567	4692568	4692569	4692570	4692571	4692572

Sample Number(s)	Released by	Received by	Date	Time	Reason for Change of Custody
4692565-72	JCamilin 1313	DP36 (GPC) Storage	1-25-06	1100	Storage
4692565-72	DSP Storage	ABC 2 GPC	1-26-06	17:00	loaded on GPC for Cleanup
4692565-72	ABC 2 GPC	MM1408	1-26-06	19:00	Concentration
4692565-72	MM1408	Dept 24 Storage	1-27-06	20:00	Storage
4692565-72	DEPT 24 STORAGE	120 RSL	1/30/06	0830	PRESCREEN & ANALYSIS

8834

Lancaster Laboratories

Organic Extraction
Secure Storage Chain of Custody
Extract

BATCH NO. 060250019A

Client Tierra Solutions, Inc.

SDG: PNV88

Analysis: Pesticides CLP Waters

Sample IDs

4693387

Sample Number(s)	Released by	Received by	Date	Time	Reason for Change of Custody
4693387	[illegible] 1313	D24 Storage	1/26/06	1315	Storage
4693387	DEPT 24 STORAGE	120 [illegible]	4/27/6	1500	ANALYSIS

8835

Volatiles by GC/MS Data

QC Summary

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: PNV88

	EPA SAMPLE NO.	SMC1 (DCA) #	SMC2 (TOL) #	SMC3 (BFB) #	TOT OUT
01	VBLKR34	103	100	100	0
02	EB1J-	105	101	100	0
03	TBPNV	106	100	99	0

	QC LIMITS
SMC1 (DCA) = 1,2-Dichloroethane-d4	(76-114)
SMC2 (TOL) = Toluene-d8	(88-110)
SMC3 (BFB) = 4-Bromofluorobenzene	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:___Lancaster Laboratories___ Contract:_____

Lab Code:_LANCAS____ Case No.:_____ SAS No.:_____ SDG No.:PNV88___

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 (DCA)#	SMC2 (TOL)#	SMC3 (BFB)#	TOT OUT
01	VBLKR37	101	103	86	0
02	LCSR37	102	103	88	0
03	LCDR37	101	102	87	0
04	6005-	106	115	79	0
05	6005-MS	106	116	70	0
06	6020-	107	127	65	0
07	6014-	105	122	68	0
08	6007-	109	112	74	0
09	6024-	108	110	78	0
10	6028-	108	108	79	0
11	6008-	113	109	77	0
12	6010-	110	108	78	0

		QC LIMITS
SMC1 (DCA)	= 1,2-Dichloroethane-d4	(70-121)
SMC2 (TOL)	= Toluene-d8	(84-138)
SMC3 (BFB)	= 4-Bromofluorobenzene	(59-113)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: 6005-_____ Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	44.95	0.00	38.74	86	59-172
Benzene	44.95	1.97	37.97	80	66-142
Trichloroethene	44.95	0.00	34.42	76	62-137
Toluene	44.95	4.43	44.04	88	59-139
Chlorobenzene	44.95	0.00	33.33	74	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene						59-172
Benzene						66-142
Trichloroethene						62-137
Toluene						59-139
Chlorobenzene						60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

Lancaster Laboratories, Inc.
Volatiles Laboratory Control Sample Recoveries

LCS: rj26l01.d
Client ID: LCSR37
Method: SOW OLM03.2
Instrument: HP07566

LCS Duplicate: rj26l02.d
Client ID: LCDR37
Matrix/Level: SL
Dilution Factor: 1.0

Batch: R060261AA

COMPOUND NAME	SPIKE LEVEL	LCS CONC UG/Kg	LCSD CONC UG/Kg	LCS REC %	LCSD REC %	Range LOWER-UPPER	RPD %	RPD MAX	INSPEC
1,1-Dichloroethene	50.00	54.52	54.30	109	108	59-172	0	22	YES
Benzene	50.00	51.33	51.90	103	104	66-142	1	21	YES
Trichloroethene	50.00	51.42	51.42	103	103	62-137	0	24	YES
Toluene	50.00	53.25	52.58	106	105	59-139	1	21	YES
Chlorobenzene	50.00	51.77	51.32	104	103	60-133	1	21	YES

N/C = Could not calculate

Lab Chronicle: _____ Ent. by _____

_____ Ver. by _____

_____

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKR37

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: rj26b01.d Lab Sample ID: VBLKR37

Date Analyzed: 01/26/06 Time Analyzed: 17:32

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP07566

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCSR37	LCSR37	rj26l01.d	17:59
02	LCDR37	LCDR37	rj26l02.d	18:25
03	6005-	4692565	rj26s01.d	19:07
04	6005-MS	4692565	rj26s02.d	19:34
05	6020-	4692566	rj26s03.d	20:01
06	6014-	4692567	rj26s04.d	20:27
07	6007-	4692568	rj26s05.d	20:54
08	6024-	4692569	rj26s06.d	21:21
09	6028-	4692570	rj26s07.d	21:48
10	6008-	4692571	rj26s08.d	22:15
11	6010-	4692572	rj26s09.d	22:42

COMMENTS: R060261AA

0842

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKR34

Lab Name: Lancaster Laboratories Contract:

Lab Code: LANCAS Case No.: SAS No.: SDG No.:

Lab File ID: rj24b01.d Lab Sample ID: VBLKR34

Date Analyzed: 01/24/06 Time Analyzed: 18:56

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: HP07566

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TBJ18	4691287	rj24s01.d	19:29
02	EB1J-	4693387	rj24s02.d	19:54
03	TBPNV	4693470	rj24s03.d	20:19
04	INJ18DL	4691286	rj24s04.d	20:44
05	INJ18	4691286	rj24s05.d	21:09
06	VIBLKR01	VIBLKR01	rj24s06.d	21:34
07	INJ18MS	4691286	rj24s07.d	21:58
08	VIBLKR02	VIBLKR02	rj24s08.d	22:23
09	INJ18MSD	4691286	rj24s09.d	22:48

COMMENTS: R060241AA

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: rj26t02.d BFB Injection Date: 01/26/06

Instrument ID: HP07566 BFB Injection Time: 08:36

GC Column: DB-624 ID: .25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	24.2
75	30.0 - 66.0% of mass 95	57.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	74.6
175	4.0 - 9.0% of mass 174	4.3 (5.8)1
176	93.0 - 101.0% of mass 174	74.4 (99.8)1
177	5.0 - 9.0% of mass 176	4.9 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	rj26i03.d	01/26/06	09:58
02	VSTD100	VSTD100	rj26i04.d	01/26/06	10:57
03	VSTD200	VSTD200	rj26i05.d	01/26/06	11:24
04	VSTD050	VSTD050	rj26cv1.d	01/26/06	11:50
05	VSTD010	VSTD010	rj26i07.d	01/26/06	12:50
06	VSTD020	VSTD020	rj26i08.d	01/26/06	13:34
07	VSTD001	1PPBMDL	rj26m01.d	01/26/06	15:48

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: rj26t03.d BFB Injection Date: 01/26/06

Instrument ID: HP07566 BFB Injection Time: 16:33

GC Column: DB-624 ID: .25 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	25.3
75	30.0 - 66.0% of mass 95	60.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	68.6
175	4.0 - 9.0% of mass 174	5.3 (7.7)1
176	93.0 - 101.0% of mass 174	68.3 (99.5)1
177	5.0 - 9.0% of mass 176	4.7 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	rj26c01.d	01/26/06	16:59
02	VBLKR37	VBLKR37	rj26b01.d	01/26/06	17:32
03	LCSR37	LCSR37	rj26l01.d	01/26/06	17:59
04	LCDR37	LCDR37	rj26l02.d	01/26/06	18:25
05	6005-	4692565	rj26s01.d	01/26/06	19:07
06	6005-MS	4692565	rj26s02.d	01/26/06	19:34
07	6020-	4692566	rj26s03.d	01/26/06	20:01
08	6014-	4692567	rj26s04.d	01/26/06	20:27
09	6007-	4692568	rj26s05.d	01/26/06	20:54
10	6024-	4692569	rj26s06.d	01/26/06	21:21
11	6028-	4692570	rj26s07.d	01/26/06	21:48
12	6008-	4692571	rj26s08.d	01/26/06	22:15
13	6010-	4692572	rj26s09.d	01/26/06	22:42

9845

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: rj24t02.d BFB Injection Date: 01/24/06

Instrument ID: HP07566 BFB Injection Time: 11:18

GC Column: DB-624 ID: .25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.6
75	30.0 - 66.0% of mass 95	50.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	75.0
175	4.0 - 9.0% of mass 174	5.6 (7.5)1
176	93.0 - 101.0% of mass 174	73.7 (98.3)1
177	5.0 - 9.0% of mass 176	4.3 (5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	rj24i01.d	01/24/06	11:40
02	VSTD020	VSTD020	rj24i02.d	01/24/06	12:05
03	VSTD050	VSTD050	rj24i03.d	01/24/06	12:30
04	VSTD100	VSTD100	rj24i06.d	01/24/06	13:53
05	VSTD200	VSTD200	rj24i07.d	01/24/06	14:18
06	VSTD050	VSTD050	rj24cv1.d	01/24/06	14:42
07	VSTD001	1PPBMDL	rj24m01.d	01/24/06	15:07

8846

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: rj24t06.d BFB Injection Date: 01/24/06

Instrument ID: HP07566 BFB Injection Time: 17:57

GC Column: DB-624 ID: .25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.8
75	30.0 - 66.0% of mass 95	51.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.3 (0.3)1
174	50.0 - 120.0% of mass 95	78.7
175	4.0 - 9.0% of mass 174	6.2 (7.9)1
176	93.0 - 101.0% of mass 174	75.2 (95.4)1
177	5.0 - 9.0% of mass 176	5.3 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	rj24c01.d	01/24/06	18:19
02	VBLKR34	VBLKR34	rj24b01.d	01/24/06	18:56
03	TBJ18	4691287	rj24s01.d	01/24/06	19:29
04	EB1J-	4693387	rj24s02.d	01/24/06	19:54
05	TBPNV	4693470	rj24s03.d	01/24/06	20:19
06	INJ18DL	4691286	rj24s04.d	01/24/06	20:44
07	INJ18	4691286	rj24s05.d	01/24/06	21:09
08	VIBLKR01	VIBLKR01	rj24s06.d	01/24/06	21:34
09	INJ18MS	4691286	rj24s07.d	01/24/06	21:58
10	VIBLKR02	VIBLKR02	rj24s08.d	01/24/06	22:23
11	INJ18MSD	4691286	rj24s09.d	01/24/06	22:48

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID (Standard): rj26c01.d Date Analyzed: 01/26/06

Instrument ID: HP07566 Time Analyzed: 16:59

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	IS1(BCM) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
	12 HOUR STD	127773	6.572	821126	7.958	764162	11.252
	UPPER LIMIT	255546	7.072	1642252	8.458	1528324	11.752
	LOWER LIMIT	63886	6.072	410563	7.458	382081	10.752
	EPA SAMPLE NO.						
01	VBLKR37	122025	6.572	772372	7.964	692698	11.255
02	LCSR37	123243	6.574	808883	7.960	709496	11.251
03	LCDR37	123910	6.569	805910	7.961	716702	11.253
04	6005-	99353	6.568	636233	7.954	484230	11.251
05	6005-MS	109920	6.569	705962	7.961	527198	11.252
06	6020-	98982	6.566	631809	7.961	416707	11.252
07	6014-	102033	6.572	638276	7.958	455728	11.252
08	6007-	100656	6.572	638447	7.961	516775	11.252
09	6024-	106405	6.569	663703	7.961	552889	11.252
10	6028-	97243	6.569	618684	7.961	517559	11.252
11	6008-	102195	6.572	655354	7.958	545745	11.253
12	6010-	101563	6.570	634505	7.959	534429	11.253

IS1 (BCM)=Bromochloromethane
IS2 (DFB)=1,4-Difluorobenzene
IS3 (CBZ)=Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID (Standard): rj24c01.d Date Analyzed: 01/24/06

Instrument ID: HP07566 Time Analyzed: 18:19

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1(BCM) AREA #	IS1(BCM) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
	12 HOUR STD	136116	6.584	835083	7.970	774764	11.255
	UPPER LIMIT	272232	7.084	1670166	8.470	1549528	11.755
	LOWER LIMIT	68058	6.084	417542	7.470	387382	10.755
	EPA SAMPLE NO.						
01	VBLKR34	132168	6.590	816372	7.979	752633	11.260
02	TBJ18	130082	6.588	805558	7.971	745261	11.256
03	EB1J-	127341	6.588	785122	7.971	726147	11.256
04	TBPNV	124931	6.591	768278	7.974	714418	11.255
05	INJ18DL	124489	6.587	771961	7.976	714301	11.257
06	INJ18	126621	6.587	779301	7.973	731953	11.257
07	VIBLKR01	122169	6.594	757317	7.980	703659	11.258
08	INJ18MS	118567	6.591	744601	7.977	705670	11.258
09	VIBLKR02	120576	6.584	751077	7.973	693147	11.255
10	INJ18MSD	120252	6.584	739276	7.970	707030	11.258

IS1 (BCM)=Bromochloromethane
IS2 (DFB)=1,4-Difluorobenzene
IS3 (CBZ)=Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

8849

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Sample Data

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

6005-

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) SOIL Lab Sample ID: 4692565

Sample wt/vol: 6.19 (g/mL) g Lab File ID: HP07566.i/06jan26b.b/rj26s01.d

Level: (low/med) LOW Date Received: 01/20/06

Moisture: not dec. 12 Date Analyzed: 01/26/06

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/Kg	Q
74-87-3	Chloromethane		2	U
75-01-4	Vinyl Chloride		2	U
74-83-9	Bromomethane		3	U
75-00-3	Chloroethane		3	U
75-35-4	1,1-Dichloroethene		2	U
67-64-1	Acetone		10	
75-15-0	Carbon Disulfide		4	J
75-09-2	Methylene Chloride		2	U
75-34-3	1,1-Dichloroethane		0.9	U
540-59-0	1,2-Dichloroethene (Total)		2	U
78-93-3	2-Butanone		6	U
67-66-3	Chloroform		0.9	U
71-55-6	1,1,1-Trichloroethane		0.9	U
56-23-5	Carbon Tetrachloride		0.9	U
71-43-2	Benzene		2	J
107-06-2	1,2-Dichloroethane		2	U
79-01-6	Trichloroethene		0.9	U
78-87-5	1,2-Dichloropropane		3	U
75-27-4	Bromodichloromethane		2	U
10061-01-5	cis-1,3-Dichloropropene		0.9	U
108-10-1	4-Methyl-2-Pentanone		3	U
108-88-3	Toluene		4	J
10061-02-6	trans-1,3-Dichloropropene		0.9	U
79-00-5	1,1,2-Trichloroethane		2	U
127-18-4	Tetrachloroethene		0.9	U
591-78-6	2-Hexanone		3	U
124-48-1	Dibromochloromethane		0.9	U
108-90-7	Chlorobenzene		0.9	U
100-41-4	Ethylbenzene		0.9	U
1330-20-7	Xylene (Total)		2	J

0851

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6005-

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) SOIL Lab Sample ID: 4692565

Sample wt/vol: 6.19 (g/mL) g Lab File ID: HP07566.i/06jan26b.b/rj26s01.d

Level: (low/med) LOW Date Received: 01/20/06

Moisture: not dec. 12 Date Analyzed: 01/26/06

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: ____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MDL ug/Kg	Q
100-42-5	Styrene		0.9	U
75-25-2	Bromoform		0.9	U
79-34-5	1,1,2,2-Tetrachloroethane		0.9	U

0852

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

6005-

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) SOIL Lab Sample ID: 4692565

Sample wt/vol: 6.19 (g/mL) g Lab File ID: HP07566.i/06jan26b.b/rj26s01.d

Level: (low/med) LOW Date Received: 01/20/06

% Moisture: not dec. 12 Date Analyzed: 01/26/06

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	2.34	520	J
2.		Unknown	2.85	53	J
3.		Unknown alkane	3.14	42	J
4.		Unknown alkane	4.40	24	J
5.	96-14-0	Pentane, 3-methyl-	4.79	8	NJ
6.	110-54-3	Hexane	5.19	17	NJ
7.		Unknown alicyclic	6.11	8	J
8.		Unknown hydrocarbon	7.04	17	J
9.	108-87-2	Cyclohexane, methyl-	8.58	8	NJ
10.		Unknown siloxane	10.33	6	J B
11.		Unknown siloxane	12.34	16	J B
12.		Unknown siloxane	13.65	6	J
13.					
14.					
15.					
16.					
17.					
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19.					
20.					
21.					
22.					
23.					
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25.					
26.					
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29.					
30.					

0053

6005- Lancaster Laboratories 4692565
Quantitation Report GC/MS Volatiles

File: /chem/HP07566.i/06jan26b.b/rj26s01.d
Sample: 6005-;4692565;2;0;;
Injected At:26-JAN-2006 19:07
Calibration Time: 29-JUN-2005 10:37
Target Method: ROLM32SL.m
Blank Reference: rj26b01.d
Sublist: 7157

Sample Concentration Formula: On-Column Amount * (Vt/Ws)
Batch:R060261AA
Analyst:JML01693
Instrument ID:HP07566.i
Standard Reference: rj26c01.d
Prep Factor:0.81
Units: ug/Kg

Matrix: SOIL
Level: Low
Sample Wt./Vol.: 6.1900 g (Ws)
Volume Purged: 5.0 ml (Vt)

Internal Standards	RT(+/-RT)	Scan	QIon	Area(+/- %Area)	Conc(ext)	QC Flag
43) Bromochloromethane	6.568(0.005)	1551	128	99353(-22)	50.00	
58) 1,4-Difluorobenzene	7.954(0.005)	1983	114	636233(-23)	50.00	
91) Chlorobenzene-d5	11.251(0.001)	3011	117	484230(-37)	50.00	

= RETENTION TIME OUT OF RANGE * = INTERNAL STANDARD OUT OF RANGE NC = NOT ABLE TO CALCULATE

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	%Rec.	QC flags	QC Limits
50) 1,2-Dichloroethane-d4	(1)	7.354(-0.001)	65	351340	53.287	106%		70 - 121
78) Toluene-d8	(3)	9.821(0.000)	98	739467	57.697	115%		84 - 138
103) 4-Bromofluorobenzene	(3)	12.239(0.000)	95	205206	39.546	79%		59 - 113

= RELATIVE RETENTION TIME OUT OF RANGE * = PERCENT REC.OUT OF RANGE D = DILUTED OUT NC = NOT ABLE TO CALCULATE

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
2) Chloromethane	(1)				ND	ND			1.62	8.08
3) Vinyl Chloride	(1)				ND	ND			1.62	8.08
5) Bromomethane	(1)				ND	ND			2.42	8.08
6) Chloroethane	(1)				ND	ND			2.42	8.08
10) 1,1-Dichloroethene	(1)				ND	ND			1.62	8.08
16) Acetone	(1)	3.723(-0.002)	43	25041	10.837	8.75			5.65	8.08
18) Carbon Disulfide	(1)	3.992(0.001)	76	76162	4.577	3.70		J	2.42	8.08
22) Methylene Chloride	(1)				ND	ND			1.62	8.08
26) trans-1,2-Dichloroethene	(1)				ND	ND			1.62	8.08
31) 1,1-Dichloroethane	(1)				ND	ND			0.81	8.08
37) cis-1,2-Dichloroethene	(1)				ND	ND			1.62	8.08
40) 2-Butanone	(1)				ND	ND			5.65	8.08
45) Chloroform	(1)				ND	ND			0.81	8.08
46) 1,1,1-Trichloroethane	(2)				ND	ND			0.81	8.08
49) Carbon Tetrachloride	(2)				ND	ND			0.81	8.08
38) 1,2-Dichloroethene (Total)	(1)				ND	ND			1.62	8.08
52) Benzene	(2)	7.453(-0.001)	78	44710	2.150	1.74		J	0.81	8.08
53) 1,2-Dichloroethane	(1)				ND	ND			1.62	8.08
61) Trichloroethene	(2)				ND	ND			0.81	8.08
66) 1,2-Dichloropropane	(2)				ND	ND			2.42	8.08
71) Bromodichloromethane	(2)				ND	ND			1.62	8.08
75) cis-1,3-Dichloropropene	(2)				ND	ND			0.81	8.08
76) 4-Methyl-2-Pentanone	(3)				ND	ND			2.42	8.08
80) Toluene	(3)	9.894(0.000)	91	87930	4.830	3.90		J	0.81	8.08

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

6005-

Lancaster Laboratories
Quantitation Report GC/MS Volatiles

4692565

File: /chem/HP07566.i/06jan26b.b/rj26s01.d
Sample: 6005-;4692565;2;0;;
Injected At:26-JAN-2006 19:07
Calibration Time: 29-JUN-2005 10:37
Target Method: ROLM32SL.m
Blank Reference: rj26b01.d
Sublist: 7157

Sample Concentration Formula: On-Column Amount * (Vt/Ws)
Batch:R060261AA
Analyst:JML01693
Instrument ID:HP07566.i
Standard Reference: rj26c01.d
Prep Factor:0.81
Units: ug/Kg

Matrix: SOIL
Level: Low
Sample Wt./Vol.: 6.1900 g (Ws)
Volume Purged: 5.0 ml (Vt)

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ
81) trans-1,3-Dichloropropene	(2)					ND	ND			0.81	8.08
83) 1,1,2-Trichloroethane	(2)					ND	ND			1.62	8.08
85) Tetrachloroethene	(3)					ND	ND			0.81	8.08
87) 2-Hexanone	(3)					ND	ND			2.42	8.08
88) Dibromochloromethane	(2)					ND	ND			0.81	8.08
92) Chlorobenzene	(3)					ND	ND			0.81	8.08
94) Ethylbenzene	(3)					ND	ND			0.81	8.08
95) m+p-Xylene	(3)	11.476	(-0.001)	106	17410	2.258	1.82		J	0.81	8.08
96) Xylene (Total)	(3)			106	17410	2.288	1.85		J	0.81	8.08
97) o-Xylene	(3)					ND	ND			0.81	8.08
98) Styrene	(3)					ND	ND			0.81	8.08
99) Bromoform	(2)					ND	ND			0.81	8.08
108) 1,1,2,2-Tetrachloroethane	(3)					ND	ND			0.81	8.08

E = CONC. OUT OF CAL. RANGE # = RELATIVE RETENTION TIME OUT OF RANGE

Comments:

Analyst: Date: 2/3/06

Auditor: Date: 2/3/06

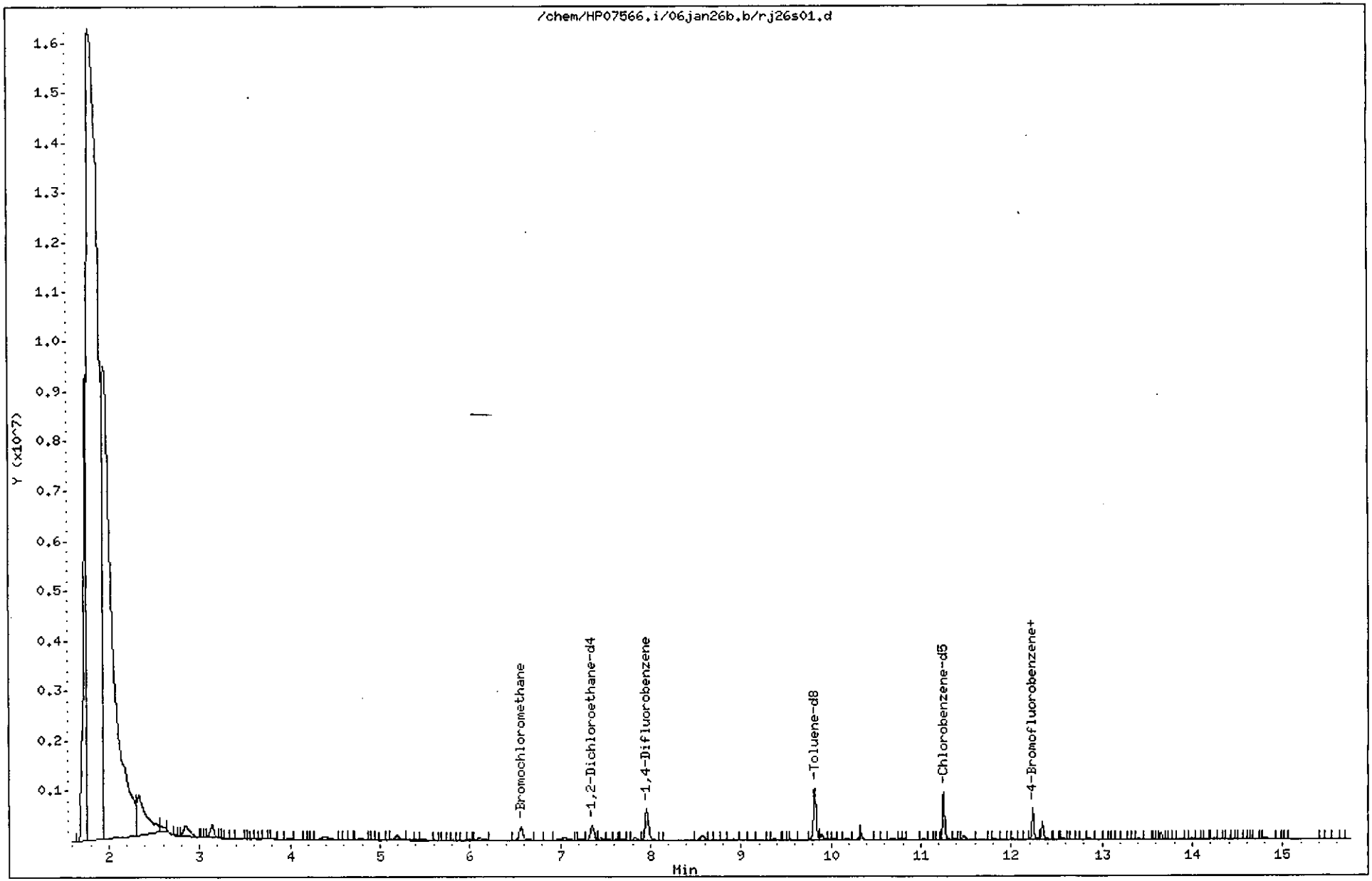
Data File: /chem/HP07566.i/06jan26b.b/rj26s01.d
Date : 26-JAN-2006 19:07
Client ID: 6005-
Sample Info: 6005-;4692565;2;0;;

Column phase: DB-624

Instrument: HP07566.i

Operator: JML01693
Column diameter: 0.25

Page 1



Quant Report

Target Revision 3.5

Data File: /chem/HP07566.i/06jan26b.b/rj26s01.d Instrument ID: HP07566.i
Injection date and time: 26-JAN-2006 19:07 Analyst ID: JML01693

Method used: /chem/HP07566.i/06jan26b.b/ROLM32SL.m Sublist used: 7157
Calibration date and time: 29-JUN-2005 10:37
Date, time and analyst ID of latest file update: 03-Feb-2006 09:47 rvn00349

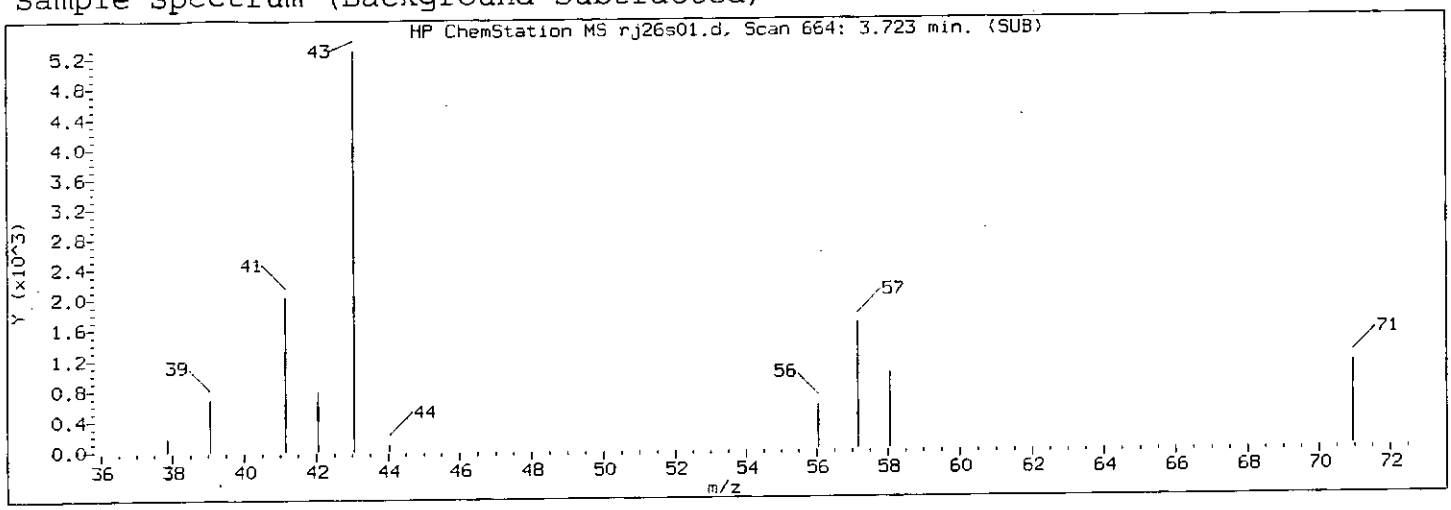
Sample Name: 6005- Lab Sample ID: 4692565

Compounds	I.S. Ref.	RT	QIon	Area	Conc. (on column)
16) Acetone	(1)	3.723	43	25041M	10.837
18) Carbon Disulfide	(1)	3.992	76	76162	4.577
43)*Bromochloromethane	(1)	6.568	128	99353	50.000
52) Benzene	(2)	7.453	78	44710	2.150
58)*1,4-Difluorobenzene	(2)	7.954	114	636233	50.000
80) Toluene	(3)	9.894	91	87930	4.830
91)*Chlorobenzene-d5	(3)	11.251	117	484230	50.000
95) m+p-Xylene	(3)	11.476	106	17410	2.258
96) Xylene (Total)	(3)		106	17410	2.288
50)$1,2-Dichloroethane-d4	(1)	7.354	65	351340	53.287
78)$Toluene-d8	(3)	9.821	98	739467	57.697
103)$4-Bromofluorobenzene	(3)	12.239	95	205206	39.546

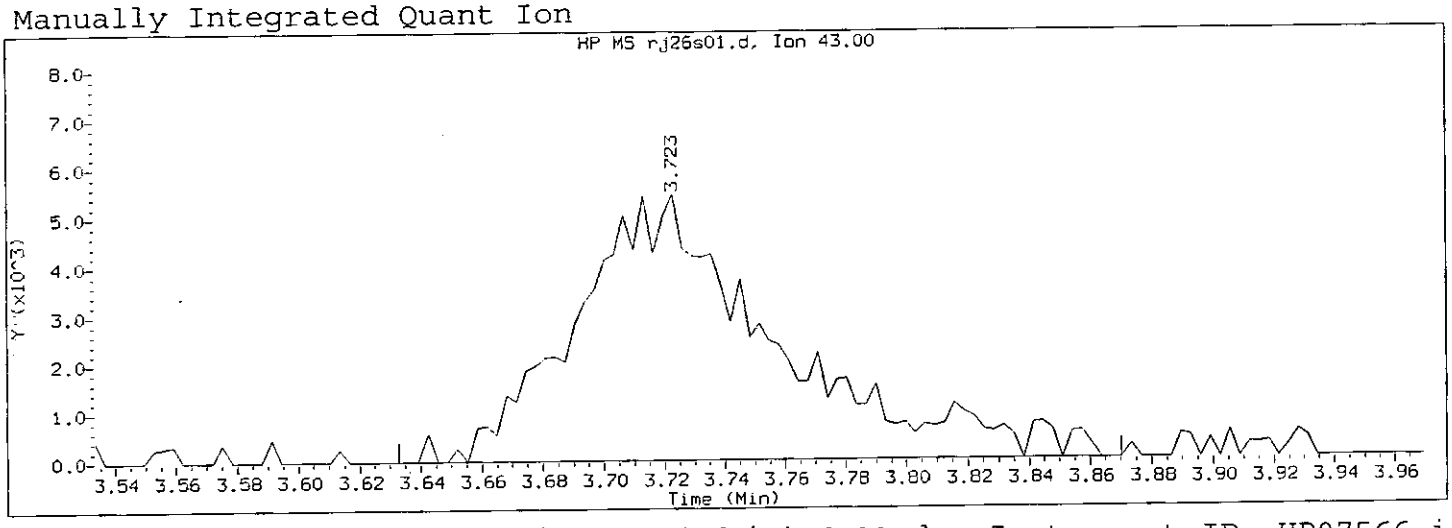
M = Compound was manually integrated.

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07566.i/06jan26b.b/rj26s01.d Instrument ID: HP07566.i
Injection date and time: 26-JAN-2006 19:07 Analyst ID: JML01693

Method used: /chem/HP07566.i/06jan26b.b/ROLM32SL.m Sublist used: 7157
Calibration date and time: 26-JAN-2006 18:08
Date, time and analyst ID of latest file update: 26-Jan-2006 22:08 jml01693

Sample Name: 6005- Lab Sample ID: 4692565

Compound Number	:	16
Compound Name	:	Acetone
Scan Number	:	664
Retention Time (minutes)	:	3.723
Quant Ion	:	43
Area (flag)	:	25041 M
Concentration (ug/Kg)	:	10.8365
Integration start scan	:	635 Integration stop scan: 709
Y at integration start	:	0 Y at integration end: 0

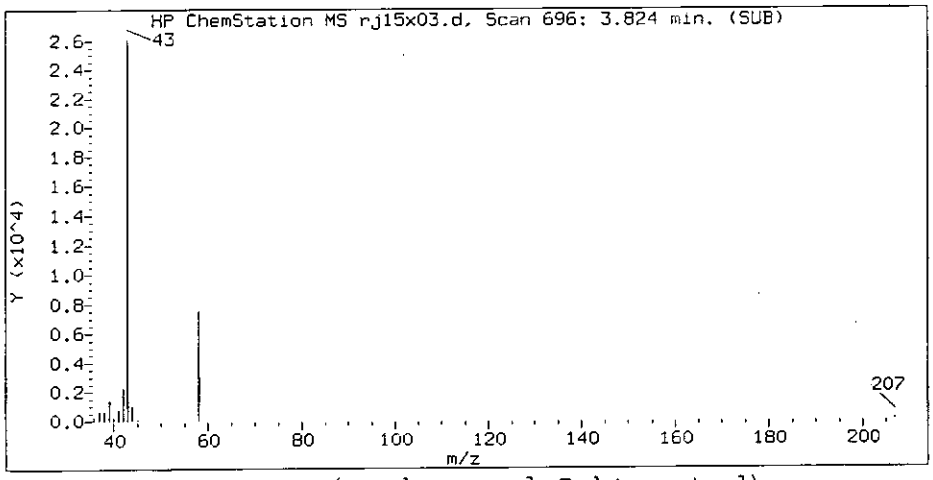
Reason for manual integration (circle one): missed peak improper integration

Analyst responsible for change: MRS 1/26/06

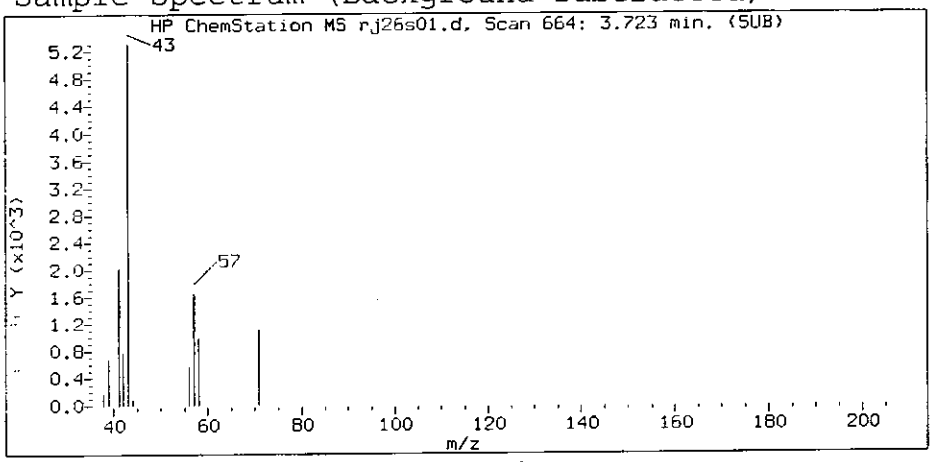
GC/MS audit/management approval: mr 2/2/6 8858

Manual Integration Report for data file /chem/HP07566.i/06jan26b.b/rj26s01.d, generated on 01/26/2006 at 22:08

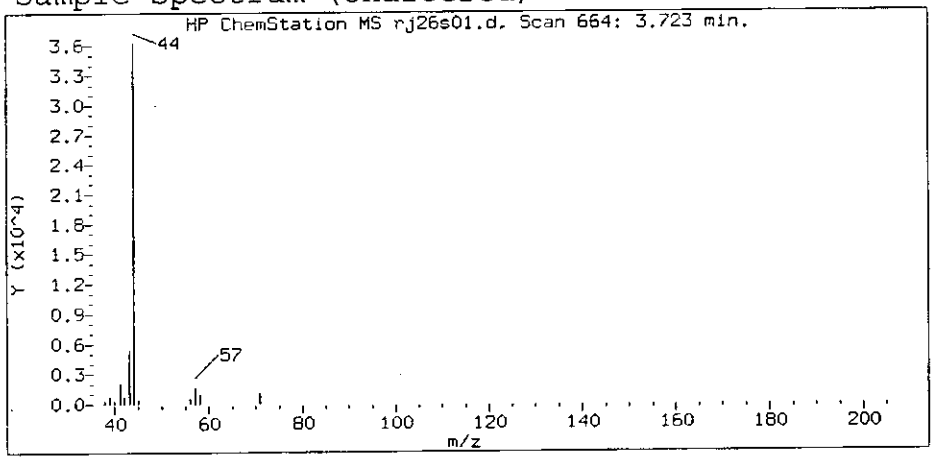
Reference Standard Spectrum for Acetone

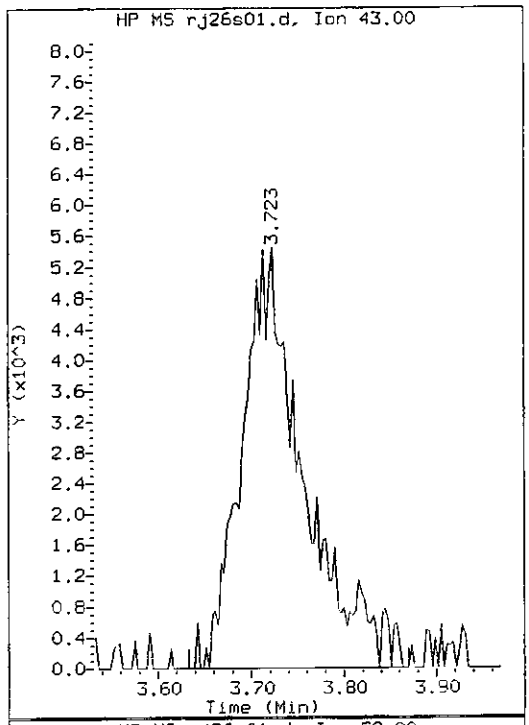


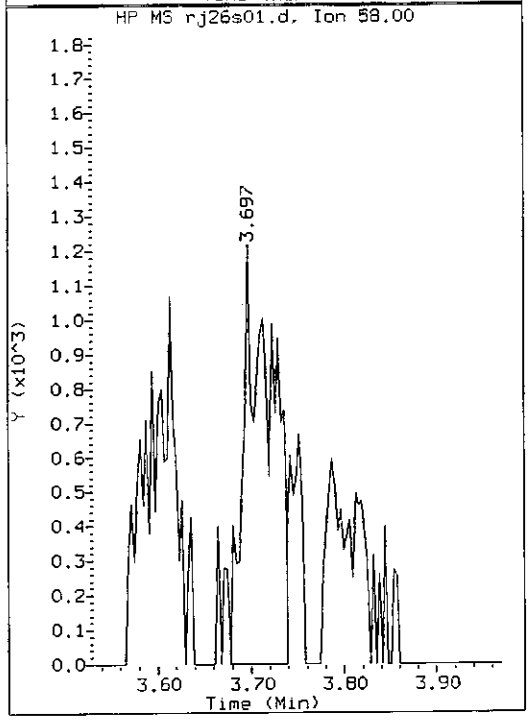
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem/HP07566.i/06jan26b.b/rj26s01.d
Injection date and time: 26-JAN-2006 19:07

Instrument ID: HP07566.i
Analyst ID: JML01693

Method used: /chem/HP07566.i/06jan26b.b/ROLM32SL.m Sublist used: 7157
Calibration date and time: 26-JAN-2006 18:08
Date, time and analyst ID of latest file update: 26-Jan-2006 22:08 jml01693

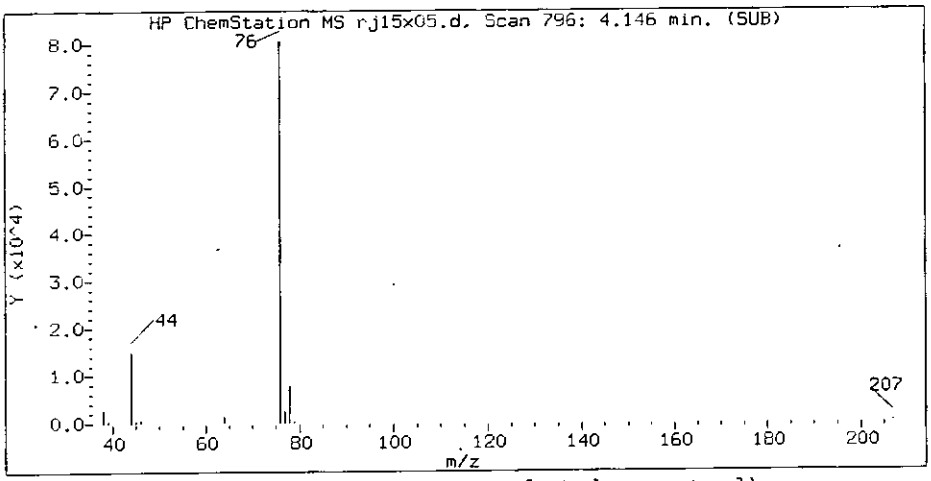
Sample Name: 6005-

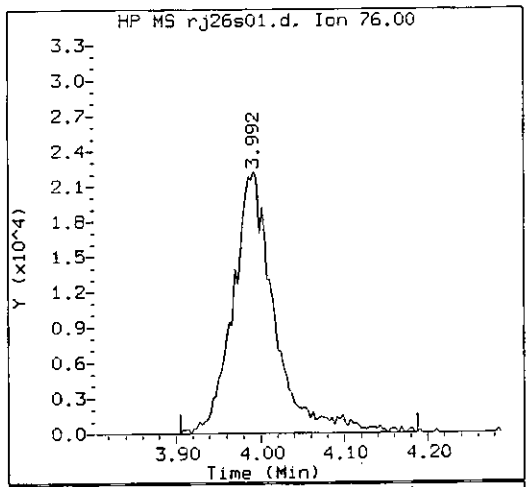
Lab Sample ID: 4692565

Compound Number	: 16
Compound Name	: Acetone
Scan Number	: 664
Retention Time (minutes)	: 3.723
Quant Ion	: 43.0
Area (flag)	: 25041 M
Concentration (ug/Kg)	: 10.8365

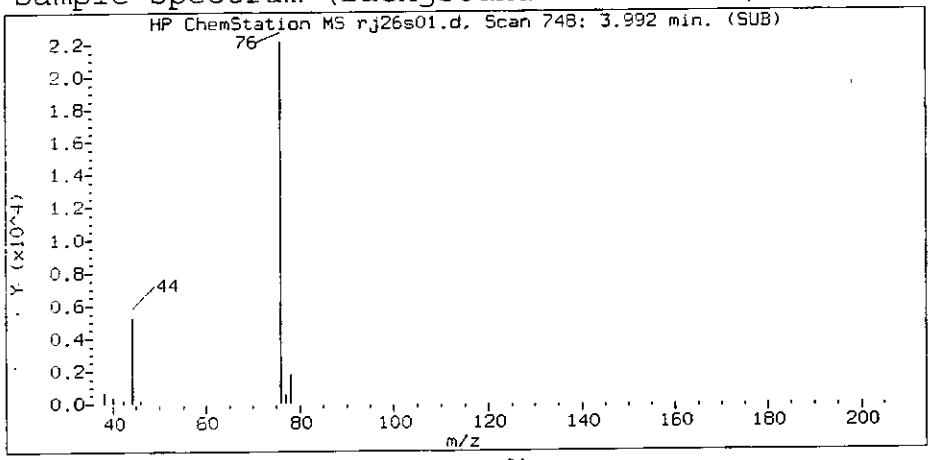
8859

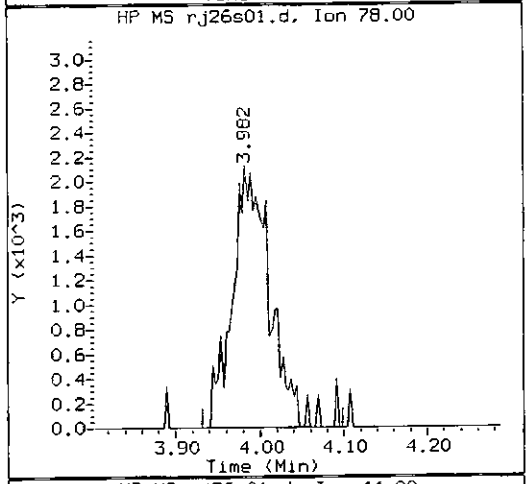
Reference Standard Spectrum for Carbon Disulfide



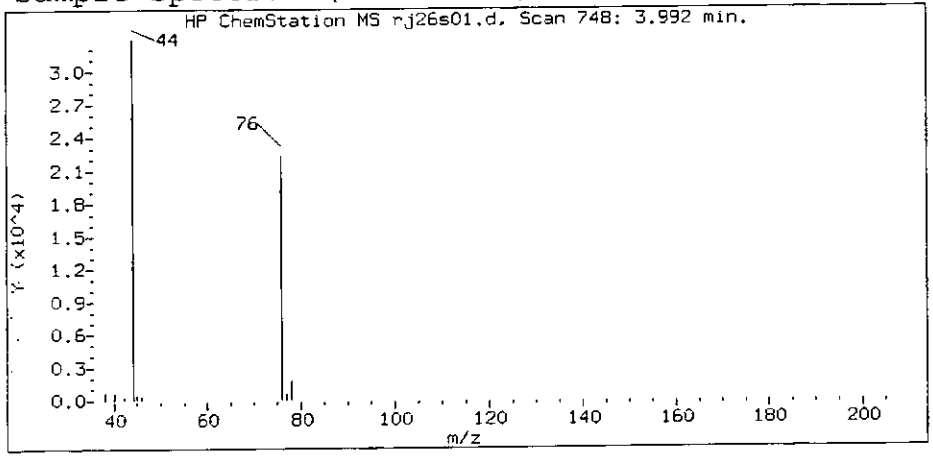


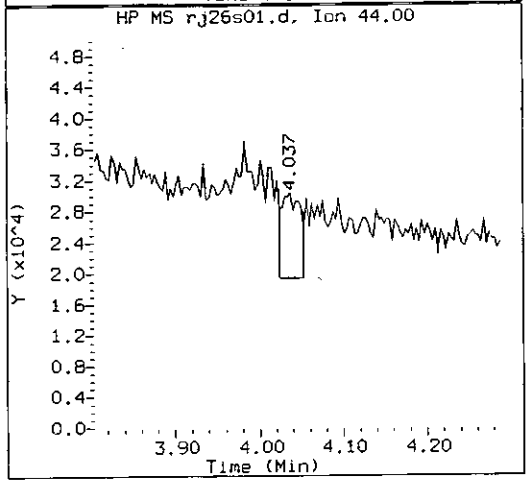
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07566.i/06jan26b.b/rj26s01.d
Injection date and time: 26-JAN-2006 19:07

Instrument ID: HP07566.i
Analyst ID: JML01693

Method used: /chem/HP07566.i/06jan26b.b/ROLM32SL.m Sublist used: 7157
Calibration date and time: 26-JAN-2006 18:08
Date, time and analyst ID of latest file update: 26-Jan-2006 22:08 jml01693

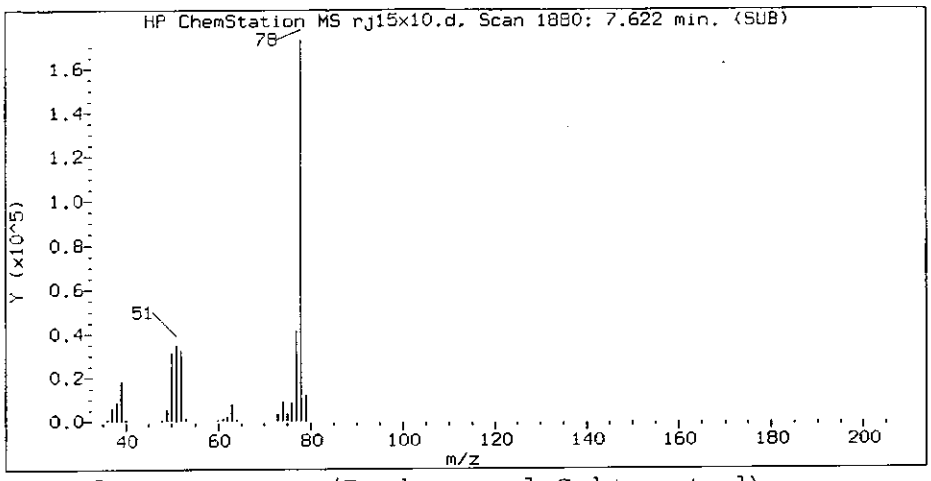
Sample Name: 6005-

Lab Sample ID: 4692565

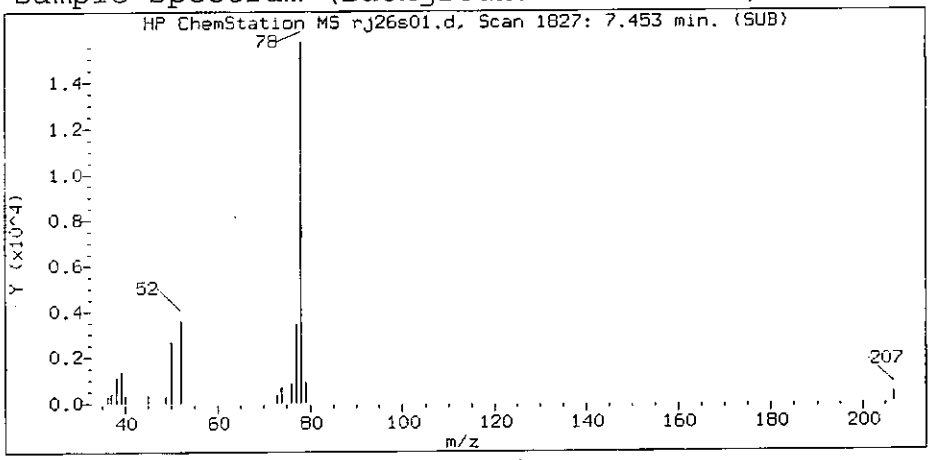
Compound Number	: 18
Compound Name	: Carbon Disulfide
Scan Number	: 748
Retention Time (minutes)	: 3.992
Quant Ion	: 76.0
Area (flag)	: 76162
Concentration (ug/Kg)	: 4.5767

[redacted]

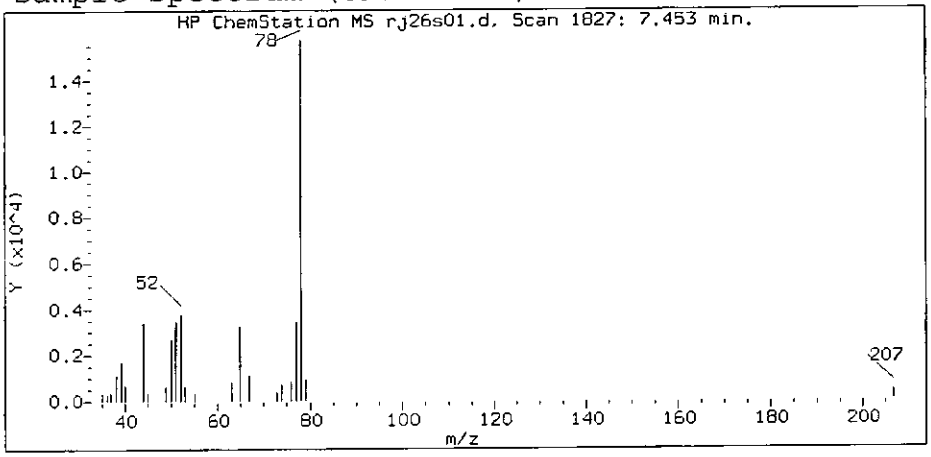
Reference Standard Spectrum for Benzene

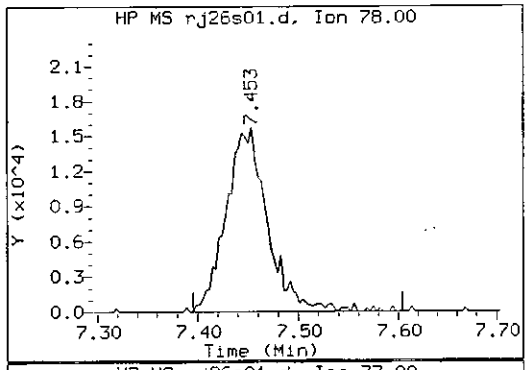


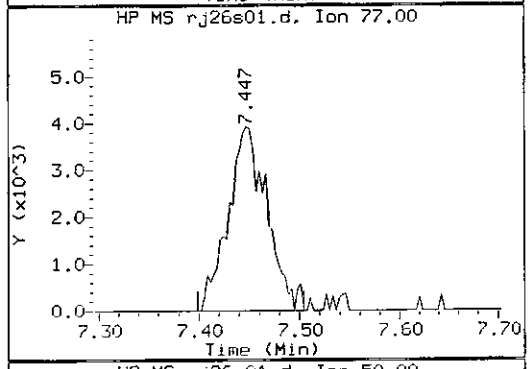
Sample Spectrum (Background Subtracted)

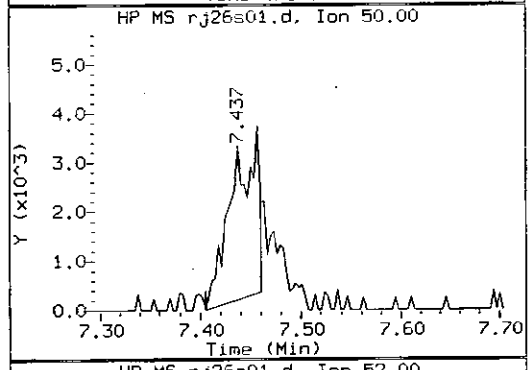


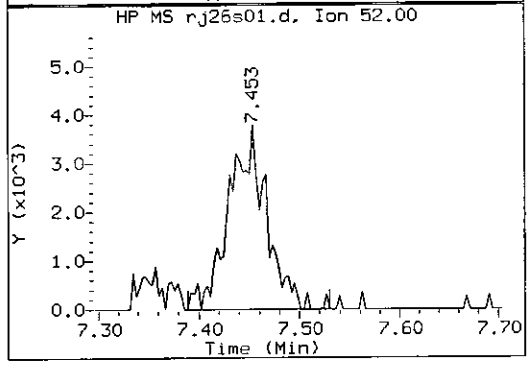
Sample Spectrum (Unaltered)











Data File: /chem/HP07566.i/06jan26b.b/rj26s01.d
Injection date and time: 26-JAN-2006 19:07

Instrument ID: HP07566.i
Analyst ID: JML01693

Method used: /chem/HP07566.i/06jan26b.b/ROLM32SL.m Sublist used: 7157
Calibration date and time: 26-JAN-2006 18:08
Date, time and analyst ID of latest file update: 26-Jan-2006 22:08 jml01693

Sample Name: 6005-

Lab Sample ID: 4692565

Compound Number	: 52
Compound Name	: Benzene
Scan Number	: 1827
Retention Time (minutes)	: 7.453
Quant Ion	: 78.0
Area (flag)	: 44710
Concentration (ug/Kg)	: 2.1497

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